THE BEAUTIES OF NATURE and ART DISPLAYED, IN A TOUR through the WORLD;

CONTAINING,

I. A General Account of all the Countries in the World, remarkable for either Natural or Artificial Curiosities; their Situation, Boundaries, Extent and Divisions; their Rivers, Air, Soils, Chief Cities, &c.

II. A particular Account of the most curious natural Productions of each Country, in the Animal, Vegetable, and Fossil Kingdoms; of remarkable Mountains, Caverns, and Volcano's; of Medicinal and other singular Springs; of Cataracts, Whirlpools, &c.

III. An Historical Account of the most remarkable Earthquakes, Inundations, Fires, Epidemic Diseases, and other public Calamities, which have, at different times, visited the Inhabitants.

IV. Extraordinary Instances of Longevity, Fertility, &c. among the Inhabitants; together with an Account of their most celebrated Inventions, Discoveries, &c.

V. Particular Descriptions of the most remarkable Public Buildings, and other singular Productions of Art.

VI. Curious Remains of Antiquity; remarkable Laws, Customs, and Traditions of the Inhabitants; together with a Summary View of the most extraordinary Revolutions among them.

Illustrated and embellished with Copper Plates.

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BEAUTIES

OF

NATURE AND ART

DISPLAYED,

IN A

TOUR through the WORLD.

SECT. IV. *of* CHAP. IV. PART II. *continued.*

THE palace of the Japaneſe Emperor at Jeddo, the capital of his dominions, is not leſs magnificent and ſpacious than that of the Emperor of China. It is ſurrounded by three high walls, and as many deep ditches, with large intervals between each; and the water is conveyed from one ditch to another by ſubterranean pipes, ſo that they are always equally full. Theſe walls have eight or nine ſtately gates oppoſite to each other, and between every two gates there is firſt a level piece of ground,

and then an aſcent by ſteps into certain out-works, with another area beyond them, where a thouſand men may be drawn up on any emergency; ſo that the avenues to the imperial apartments are ſufficiently ſecured. In the ſpace between the firſt and ſecond wall live the petty kings, princes, the chief nobility, and governors of the provinces, in ſtately edifices, according to their rank and office; and the ornaments and furniture within are anſwerable to their external appearance, it being eſteemed a mark of reſpect to their monarch to ſtrive to out-do one another in the riches and ſplendor of their houſes and furniture. Between the ſecond and third wall live the Emperor's relations and principal counſellors, each in ſeparate apartments, or rather palaces, extremely grand and beautiful. In the centre of all, within the third inclofure, are the imperial apartments, conſiſting of a great number of ſpacious halls, lodgings, offices, &c. for the Emperor, his wives, and attendants, all of them richly furniſhed. Theſe apartments are three rows of buildings, nine ſtories high, and formed on the top like pyramids, which are crowned with large gilded dolphins. The cielings of the halls and chambers are plated with gold and ſilver, curiouſly raiſed and worked, and enriched with variety of precious ſtones. The hangings are of the richeſt ſilk, flowered with ſilver and gold, pearl, and other embelliſhments. In the hall of audience, where the Emperor receives homage or ambaſſadors, there is a throne of maſſy gold, beſet with large gems of ineſtimable value. The roof, which is lofty,

lofty, is alſo plated with gold, richly enamelled with curious figures and landſkips, and ſupported by ſtately gilded columns. The gardens behind the apartments are laid out in an elegant taſte, and are moſt agreeably diverſified and adorned with terraſſes, canals, fiſh-ponds, water-works, and other ornaments. Nor ſhould we forget to mention the noble theatre in the area before this inner court, where plays are frequently acted for the diverſion of the imperial family. Upon the whole, this amazing palace, or rather aſſemblage of palaces, which is five or ſix miles in circumference, looks like a populous and opulent city within itſelf, inhabited by princes and nobles, and by the eldeſt ſons of all the great men of the empire, who are educated there, and kept as pledges of their fathers fidelity. All theſe contribute to form a moſt ſplendid court, their dreſs, equipages, &c. being extremely beautiful and ſumptuous.

To theſe we might add ſeveral other ſtately palaces both in China and Japan, but of all the public buildings of thoſe countries none are ſo magnificent and extravagantly adorned as many of their temples, which are lofty ſtructures, filled with an incredible number of idols, before which hang lamps that are continually burning. The Chineſe reckon near five hundred of theſe temples of the firſt rank, beſides a prodigious number of others of leſſer note, which are to be found in every town and village, and which are ſerved by about 350,000

Bonzes or prieſts *, who offer rice, wine, and other proviſions to their deities, and have generally large revenues for their ſubſiſtence. Near theſe temples are frequently cloyſters or monaſteries of thoſe who have devoted themſelves to religion, who undergo ſuch voluntary penances as they think will be moſt acceptable

* Theſe are the prieſts of the moſt numerous ſect of idolaters in China, who worſhip the idol Fo, whom they call the only God of the World, and who is ſaid to have been brought from India about thirty years after the death of our Saviour. They teach ſeveral moral precepts, and that there is a future ſtate of rewards and puniſhments. Their ſanctity is reckoned very great, and their voluntary penances of ſuch value, that they are thought ſufficient to atone for the ſins of the people. Another conſiderable ſect are the followers of Li Laokum, who lived, they ſay, above five hundred years before Chriſt. He taught that God was corporeal, and had many ſubordinate deities under his government. A third ſect is that of the learned, or the diſciples of the celebrated Confucius, who delivered excellent precepts of morality, and inſtructed the people in philoſophy. He ſpeaks of God as a moſt pure and perfect principle, the fountain and eſſence of all beings; and though we are told he prohibited idolatry, he has temples and images erected to him, and is worſhipped with the moſt profound adoration. Theſe are the three principal ſects among the Chineſe, who, beſides their numerous images, alſo worſhip the ſun, moon, and other planets, the ſouls of their anceſtors, and of thoſe who have been the authors of any notable invention.

to their gods, living abſtemious lives, and bearing their mortification with the utmoſt reſolution.

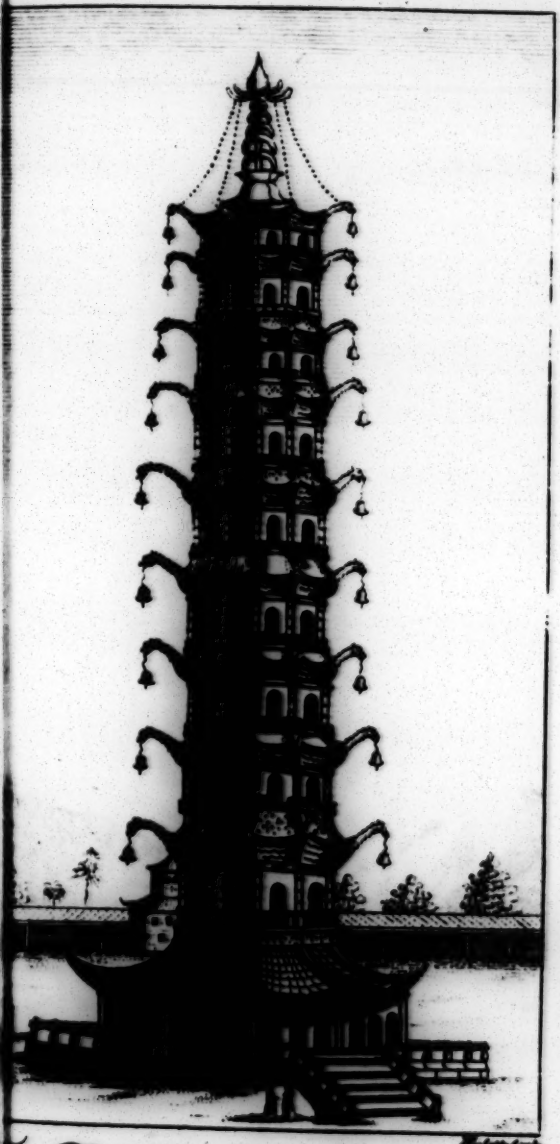
The temples in Pekin are large and numerous, covered with ſhining tiles, which dazzle the eye of the ſpectator; and beſides thoſe in the city, there is a multitude of other fine ones in the country round about it, which afford a noble proſpect. Amongſt the reſt there is one of a pyramidical form, built upon the ſummit of a mountain formed by art, which is ſo rough and craggy that it looks quite frightful; and near the temple is a lofty tower of a circular form, ten ſtories high, round the uppermoſt whereof hang fifty bells, which are ſo eaſily moved by every breath of wind, that they keep a continual tinkling, and are heard at a great diſtance.

The temple of the Sun, which ſtands about half a mile from the eaſtern gate of Pekin, is a vaſt pile of buildings, ſurrounded with a wall near a mile in circumference, within which are ſeveral large apartments, and in the midſt of them a ſpacious and lofty hall, whoſe roof is ſuſtained by fourſcore ſtately columns, adorned with gold and azure. Hither the Emperor repairs at the time of the winter ſolſtice, and offers ſacrifices of oxen, ſheep, goats, &c. to the ſun, the whole ceremony being performed with the greateſt appearance of humility and devotion.

Perhaps

Perhaps it will be no diſagreeable digreſſion, if we mention another ceremony performed by the Chineſe Emperors at the temple of the Earth, which is ſituated on the weſt ſide of Pekin, about the ſame diſtance from the walls with that of the Sun. As ſoon as a new Emperor is crowned, he is conducted to this temple, where he puts on the habit of a ploughman, and goes to a ſpot of arable ground within the incloſure of the building, where he finds a plough gilt and varniſhed, and two oxen with gilt horns yoked to it; and taking the plough in his hand, he holds it the length of two or three furrows, with the aſſiſtance, we imagine, of ſome perſon better ſkilled in the buſineſs. Whilſt he is about this ruſtic employment, his conſort, accompanied by her ladies, comes and prepares him ſome homely diſh, which they bring to him in ordinary veſſels, and all ſit down and eat together. This is an antient cuſtom among the Chineſe, originally deſigned to put their new Monarch in mind, that his revenue was owing to the ſweat and labour of his ſubjects, for which reaſon he ought to avoid all ſuperfluous expences, and eaſe them of all needleſs burthens.

At Meaco, formerly the capital of Japan, there is the moſt magnificent and ſumptuous temple in the whole empire. It is as long and as high as St. Paul's church in London, the dome excepted, and is all built of free-ſtone. It has an arched roof, ſupported by a great number of pillars; and has a vaſt many altars



The Porcelain Tower at Nanking

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altars and idols in it, particularly a gigantic one of gilt copper. This temple ſtands upon the top of a hill, and on each ſide of the aſcent there are fifty ſtone pillars, ten paces diſtant from one another; on the tops of theſe are ſo many large lanthorns or lamps, which being lighted in the night-time, make a pretty appearance.

The temples at Jeddo in Japan, are very numerous and ſplendid, particularly that of Amida, one of their principal deities, which is almoſt covered with gold. The ſtatue of that deity is on horſe-back, placed on a magnificent altar covered with plates of the ſame metal; and the houſings of the horſe are alſo embroidered with it, and enriched with pearls, diamonds, and other gems of immenſe value. Nothing can be more ugly and frightful than the figure in which he is repreſented; and indeed many other idols of theſe eaſtern nations are formed in the moſt monſtrous ſhapes imaginable.

Without the gates of ſeveral great cities in China there are lofty towers erected, which ſeem chiefly deſigned for ornament, and for taking a view of the adjacent country. The moſt remarkable of theſe towers is that of Nanking, called the Porcelane Tower, being covered from top to bottom with porcelane tiles beautifully painted. It is of an octangular figure, contains nine ſtories, and is about two hundred feet high, being raiſed on a very ſolid baſe

baſe of brick-work. The wall at the bottom is at leaſt twelve feet thick, and the building leſſens all the way to the top, which is terminated by a ſort of ſpire or pyramid, having a large golden ball or pine-apple on its ſummit. It is ſurrounded by a baluſtrade of rough marble, and has an aſcent of twelve ſteps to the firſt floor, from whence one may aſcend to the ninth ſtory by very narrow and incommodious ſtairs, each ſtep being ten inches deep. Between every ſtory there is a kind of penthouſe or ſhed on the outſide of the tower, at each corner whereof are hung little bells, which being moved by the wind, make a pleaſant jingling. Each ſtory is formed by large pieces of timber, and boards laid acroſs them; the cielings of the rooms are adorned with paintings, and the light is admitted through windows made of grates or lattices of wire. There are likewiſe abundance of niches in the wall, filled with images of their deities; and the variety of ornaments that embelliſh the whole makes it perhaps the moſt beautiful ſtructure in the empire. It has now ſtood above three hundred years, and yet appears very little decayed.

To theſe we may add another kind of ſtructures very common in the great cities of China, ſome of which appear noble and beautiful, viz. their triumphal arches, erected in memory of their great princes, lawgivers, philoſophers, and ſuch other perſons as have either done ſome ſignal ſervices to the ſtate, or have been diſtinguiſhed by their ſingular piety, learning, valour,

valour, or other accompliſhments. Theſe ſtructures uſually conſiſt of three arches, built of free-ſtone or marble, of which the middle arch is the higheſt. They are ſupported by pillars, ſometimes round, but oftner ſquare, of one entire ſtone, placed on an irregular baſis; and they are adorned with the figures of men, beaſts, birds, and other ſculptures, after the Chineſe manner, together with inſcriptions and panegyrics on the perſons to whom they were erected. Many of theſe arches are lofty and grand, but ſome are ſo very indifferent that they deſerve no notice. They reckon in the whole empire above three thouſand ſix hundred illuſtrious worthies, and about two hundred women, who are celebrated for their chaſtity or other virtues, both in the Chineſe books, and on theſe triumphal arches.

Before we leave this ſubject, we ought to mention ſome of the bridges of China, which may be looked upon as wonderful pieces of art, ſcarce to be paralleled by any thing of the kind in Europe. The moſt ſurpriſing of theſe ſtructures is that which has obtained the name of the Flying Bridge, being built over a river from one mountain to another, and conſiſting only of one ſingle arch, five hundred cubits high, and four hundred long. There is another remarkable bridge in the province of Xanſi, at the conflux of two large rivers, which is built upon a hundred and thirty barges chained together, but ſo contrived as to open and admit veſſels to paſs through, after paying the

the uſual toll. This ſort of bridges is common in China; but they have another ſort built upon pillars without any arches, and ſome of theſe of a great length and breadth, particularly one in the province of Fokien, which is three hundred and ſixty perches long, and one and a half broad. It is all of white ſtone, ſupported by three hundred pillars, has a parapet on each ſide, and is adorned with the figures of lions at certain diſtances, and variety of other ſculptures. Some of their arched bridges are likewiſe of conſiderable length, breadth, and beauty, eſpecially that of Fuchew, the capital of Fokien, which is above a hundred and fifty perches long, and conſiſts of a hundred lofty arches. The parapets of this bridge are alſo adorned with the figures of lions and other animals.

One of the greateſt curioſities of the artificial kind which China affords, and which may be reckoned one of the nobleſt remains of antiquity now in the world, is that prodigious wall which was built by the Chineſe to prevent the frequent incurſions of the Tartars. This wall, Du Halde informs us, is higher and broader than the common walls of the cities of China, that is, about twenty-five feet in height, and broad enough for ſix horſemen to ride a-breaſt upon it; and is fortified all along with ſtrong ſquare towers at proper diſtances, to the number of three thouſand, which, in the time of the Chineſe monarchs, before the Tartars ſubdued the country, uſed to be guarded by a million

million of ſoldiers. The whole length of it, with all its windings, is computed near fifteen hundred miles, running all along the three northern provinces of Pekeli, Xanſi, and Xenſi, and built on ſome places which ſeem inacceſſible, as well as over rivers, and ſuch marſhes and ſandy hollows as one would think incapable of admitting a foundation for ſo weighty a ſtructure. It is chiefly built of brick, and ſo ſtrongly cemented with an extraordinary kind of mortar, that though it has now ſtood near 2000 years, expoſed to all winds and weathers, it is very little decayed, and the terraſs on the top ſeems ſtill as firm as ever. This amazing wall was built by the Emperor Chihohamti, according to ſome authors, or Tſinſhiwhang, according to Du Halde, above two hundred years before our Saviour; and though of ſuch ſtupenduous length and bulk, and carried on over mountains and valleys, was compleated within the ſpace of five years, if we may credit the Chineſe tradition.

The many long and deep canals which the Chineſe have made by dint of labour throughout moſt parts of the empire, either for the better watering of their grounds, or for the conveniency of conveying their merchandiſe from place to place, deſerve to be ranked among the rarities of the country. There is a large canal in almoſt every province, banked on each ſide with ſquare ſtones, and having its keys, ſluices, and bridges at convenient diſtances. The roads on the ſides of theſe ca-

nals are either paved, or made hard and ſound with gravel, and planted on each ſide with rows of ſhady trees. From theſe great canals, which are commonly ſtiled Royal Rivers, are cut ſeveral ſmaller, which are again branched out into rivulets, that generally end at ſome town or village. Sometimes they diſcharge themſelves into great lakes or ponds, out of which all the adjacent country is watered; ſo that theſe clear and plentiful ſtreams, embelliſhed with ſo many fine bridges, bounded by ſuch neat and convenient banks, equally diſtributed into ſuch vaſt plains, covered with innumerable boats and barges, and crowned, as it were, with a prodigious number of towns and cities, whoſe ditches they fill, and whoſe ſtreets they form, do at once make China the moſt fruitful and moſt beautiful country in the world.

To theſe may be added a whimſical kind of artificial curioſity peculiar to China, which, though of no uſe but to pleaſe the ſight, could not be made without immenſe labour and expence. Theſe are ſome of their mountains, which they have cut and formed into various ſhapes, ſo as to reſemble horſes, birds, &c. What the Chineſe ſay of their ſtructure is ſo filled with fables and ridiculous ſtories, that no regard is to be given to it; and theſe odd figures, though of ſuch prodigious bulk, plainly appear to be the work of art and labour, and neither owing to miracles nor magic, as the Chineſe would have us believe. Thoſe commonly

monly called the mountains of the Five Horſes Heads, are the moſt wonderful of all, and could not be fabricated into ſuch ſhapes without a vaſt number of hands and inconceivable labour.

Some cities of China, particularly Pekin and Nanking, have been famous for the largeneſs of their bells, there being ſeven in Pekin, according to Father Le Compte, each of which weighs 120,000 pounds.

The monſtrous Coloſſus * at Meaco, already mentioned, is reckoned among the rarities of that

* This is a name given to any ſtatue of an enormous or gigantic ſize. The moſt eminent of this kind was the Coloſſus of Rhodes, which was a brazen ſtatue of Apollo, the height whereof was ſeventy cubits, or one hundred and five feet, and every part proportionable, the thumb being ſo big that few men could graſp it with their arms, and every finger of the ſize of an ordinary ſtatue. One of its feet ſtood on one ſide of the mouth of the harbour, and the other on the oppoſite ſide, ſo that ſhips under ſail paſſed between its legs. It was the work of Chares, a diſciple of Lyſippus, who ſpent twelve years in making it; and after it had ſtood above 1300 years, it was thrown down by an earthquake. When the Saracens made themſelves maſters of Rhodes, the ſtatue was found upon the ground broken and demoliſhed, and was ſold to a Jew, who loaded nine hundred camels with the metal; which therefore, allowing eight hundred weight to each load, beſides the diminu-

that country. It is one of their principal idols or deities, is all of gilt copper, and is ſeated in a chair ſeventy feet high. No leſs than fifteen men, they ſay, can ſtand conveniently on its head; and its other parts being proportionable, one may from thence form a judgment of its enormous bulk. The Japaneſe indeed, as well as the Chineſe, are ſo addicted to idolatrous worſhip, that every place ſwarms with idols; they have them not only in their temples, but in other public and private buildings, and even in their highways, ſtreets, and markets. There is particularly, in the great city of Meaco above mentioned, a temple that may be looked upon as a Japaneſe Pantheon, having no leſs than 3333 idols within its walls.

tion we may ſuppoſe it had ſuffered by ruſt and theft in a long courſe of time, amounted to 720,000 lb. weight, or three hundred and ſixty tons; a prodigious quantity of braſs to be employed in forming one ſingle ſtatue! Some of the moderns have doubted whether there ever was ſuch a ſtatue at Rhodes as the Coloſſus above deſcribed, and indeed the extravagant dimenſions aſcribed to it would tempt one to doubt the truth of the relation: but being mentioned by ſo many writers of reputation, it is more than probable that there was at Rhodes an image of a prodigious ſize, dedicated to the ſun; though the hyperbolical or figurative expreſſions uſed by ſome writers concerning it, may have given occaſion to others to magnify its dimenſions conſiderably beyond the truth.

SECT.

SECT. V.

Remarkable Laws and Cuſtoms of the Chineſe and Japaneſe; together with ſome Account of their Origin and Hiſtory.

MARRIAGE, or rather the bringing the ſexes together, is thought ſo much to the advantage of the ſtate in China, by multiplying the number of ſubjects, that no man can live ſingle twenty years, without being pointed at; but then, the conſent of the parties is never aſked; their parents or guardians enter into a contract, when both the boy and the girl are infants; and when they come to years of maturity, the young gentleman ſends the lady a preſent, ſuitable to her quality; a ſplendid cavalcade is made; the bride is conveyed to the houſe of her ſpouſe, who never ſees her till ſhe enters his doors: then he unlocks the chair that brings her; and if he does not like her, is at liberty to return her to her friends that moment, provided he is willing to loſe the preſents that have been made her, with which he may be ſaid to have purchaſed his wife: for he never receives any fortune with her. The lady, however, has not the like option; if her huſband will keep her, ſhe is not

allowed to retreat, how much ſoever he proves to be her averſion, and how many wives and concubines ſoever he may have beſides.

When the man has once received his wife, he cannot turn her off, unleſs it be for adultery, or ſome notorious crime: but in theſe caſes, he may ſell her, and purchaſe another with the money. As to the common people, they ſeem to be ſo much aſhamed of living ſingle, after the age the cuſtom of their country requires them to marry; or they have ſuch a ſtrong propenſity towards matrimony, that they will ſometimes conſent to become ſlaves, on condition they may have a ſlave in a family for a wife, when they are not in circumſtances to purchaſe one.

The Chineſe women, being ſeldom ſuffered to appear in company either within doors or without, amuſe themſelves with painting, or needlework; or with birds, dogs, or other animals, as ſome of the ſex do here. They are perfectly diſqualified for dancing, being made cripples from their infancy, in order to make them little feet. It is with great difficulty therefore that they walk, and that very aukwardly.

The ſons in China have three names, viz. the common name of the family, or ſurname, a proper name, and a third, when they are advanced to any preferment or employment. The daughters are called by their father's ſurname,

name, even after marriage; and diſtinguiſhed only by their ſeniority, being called the firſt, ſecond, or third daughter, of their father. As there are a multitude of Eunuchs in the emperor's court, and in the families of other great men, who have not only the care of the women, but the management and direction of moſt of their affairs, the poor women, in order to qualify their ſons for preferment, frequently caſtrate them; and ſometimes, if they find they are not able to maintain their children, they ſtrangle them with their own hands; for poverty ſeems to them worſe than death.

The Chineſe no ſooner come to the years of maturity, than they make proviſions for their deaths. Every man furniſhes his houſe with a coffin among other moveables, to put him in mind of mortality; and people of fortune encloſe a piece of land for a burying ground, where they erect a tomb, and a magnificent temple over it, to which they are brought when they die, though at never ſo great a diſtance from home. But ſuch tombs are generally erected in ſolitary places, or by the ſide of the highway, or at a diſtance from towns. None are ever buried within the walls of a city. The poor have a common burying place alſo, at ſome diſtance from the town they die in. Their coffins are made of a very laſting wood, ſeven or eight inches thick, which makes them appear much larger than ours: but they are of the ſame form, and fine-

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ly japanned without, which very much preſerves the wood, and makes it the more durable, as well as beautiful. They endeavour to preſerve the remains of their dead as long as poſſible, from a ſuppoſition, it is ſaid, that as long as any part of the body is left, the ſoul continues about it.

The death of a man of fortune is no ſooner known to his relations, but they meet, and perfume the corpſe; dreſs it in the beſt cloaths; and having ſet it upright in a chair, his wives, children, and friends, ſucceſſively fall down before him, and lament their loſs. Three days after, a large room is hung with mourning, that is, with white linen; and the third day, the corpſe being put in a coffin, is laid there in ſtate, an altar erected before it, and an image of the deceaſed placed upon the altar. The relations then attend again, bringing lighted wax torches, and incenſe, which they burn, and proſtrate themſelves before the corpſe; the ſons then place themſelves on one ſide of the coffin, cloathed in white; and the wives and daughters ſtand on the other ſide behind a curtain, bewailing themſelves in the moſt moving ſtrains; the prieſt at the ſame time ſinging mournful hymns ſuitable to the occaſion. Several diſhes of meat are ſerved up every day, for ſome conſiderable time, and placed upon a table, and at night the prieſts divide the meat among them.

The coffin being very thick and cloſe, no offenſive ſmell can be perceived. The funeral

is

is therefore frequently put off for ſeveral months, and ſometimes years; a paper being ſet up over the gate of the houſe, reciting the virtues and commendable qualities of the deceaſed: the ſons for ſeveral nights ſleeping upon mats around the coffin, and abſtaining from all fleſh meat, ſtrong liquors, and the commerce of women: nor muſt the ſon enter upon any office or employment for three years after the death of his father; and it is reckoned impious even to laugh, or take any manner of pleaſure during the time of mourning.

The ſon having invited his friends and relations to attend his father's corpſe to the grave, the proceſſion begins with thoſe who carry the images, or pictures of men, women, beaſts, and birds, attended with a great number of torches; trophies, triumphal chariots, pageants, and tables with ſeveral diſhes of meat, are carried before the corpſe. Then follow the prieſts with drums, muſic, and jingling bells; and next the coffin, under a large canopy, is carried by twenty or thirty men; the ſons follow the coffin on foot, ſupporting themſelves with crutches; the women then advance in cloſe chairs, covered with white ſilk, rending the air with their cries; and beſides theſe are other women, who are hired to make a mournful diſmal noiſe on theſe occaſions. The corpſe being depoſited in the tomb, an altar is erected before it, and lights left burning on the altar; the friends of the deceaſed viſiting the tomb at certain ſeaſons, proſtrating themſelves

ſelves before it, with their faces to the ground. They burn incenſe, pour out wine, and offer diſhes of meat to the deceaſed, upon which the prieſts entertain themſelves when they are gone. The character of the deceaſed, being engraved on marble, is placed before the altar. Every man alſo has a tablet in his houſe, whereon are engraved the names of his great grand-father, his grand-father and father, whom they worſhip, and their great men have temples erected to their memory, and a yearly ſacrifice offered to them.

During the firſt year of mourning, both men and women wear coarſe white linen, almoſt torn to rags; the ſecond year, their cloaths are ſomething better, and the third year, they are allowed to wear white ſilk. Three years a widow mourns for the death of a huſband; and the man one year for his wife, and one for a brother.

The two chief religious ſects among the Chineſe, are the ſect of the learned, the diſciples of Confucius, who gave them many admirable precepts, and ſpeaks of God as a moſt pure and perfect Spirit, the fountain and eſſence of all other beings; and the ſect, which worſhip the idol Fo, whom they ſtile the only god of the world. The Bonzes, who are the prieſts of this religion, aſſure the people, that there is a ſtate of rewards and puniſhments after this life; and preach up morality, as a qualification for a happy futurity. They inſiſt

ſiſt further, that it is not lawful to kill any living creature, or to drink ſtrong liquor; and hold the doctrine of tranſmigration. Theſe Bonzes undergo the ſevereſt penances, by which they imagine they merit much, and can apply their merits to whom they pleaſe. In their temples is an image of immortality, repreſenting a fat man, ſitting croſs legged; another called the image of pleaſure, twenty feet high, and between them another image thirty feet high, with a crown on his head: beſides which, they have abundance of little images in their houſes, which they worſhip as well as Confucius, and their anceſtors. The ſun, moon and ſtars alſo, are objects of their adoration.

The Tartars worſhip a living man, who is ſtiled the great Lama, from whom his prieſts are called Lama's. They call him alſo the eternal father. He is never publicly ſeen by day light, but in his temple by the light of lamps. He ſits on a raiſed floor, dreſſed in the robes of a ſovereign prince, and thoſe that approach him fall proſtrate on the ground, kiſſing his feet; and his diſciples believe he is immortal. The Tartar princes never think themſelves ſettled on their thrones, till they have obtained his bleſſing; and the emperor of China goes annually into Tartary to adore him.

Amongſt the laws of the Chineſe, there is none more religiouſly obſerved, than that of ſub-

ſubmiſſion to parents. If a father complains his ſon is diſobedient, there needs no farther evidence to put him to death. If a man ſhould deride or ſtrike a parent, the whole neighbourhood is immediately alarmed, and riſe to bring the criminal to juſtice: he is ſentenced to be cut in pieces, his houſes and lands deſtroyed, and to remain ſo to deter others from committing the like crime. In treaſon, the children and family frequently ſuffer as well as the criminal. Murder is puniſhed with death, but for adultery and theft, when no violence is uſed, the offender comes off with a ſevere baſtinado.

Cauſes are generally decided, and ſentence given by a ſingle Mandarin, who after a ſhort proceſs, and the examination of both parties, orders the perſon who has loſt the cauſe to be baſtinadoed, either for carrying on an unjuſt proſecution, or maintaining a cauſe contrary to equity. The next puniſhment is a collar made of two pieces of wood, hollowed in the middle, and ſmaller or greater according to the nature of the crime: this is put on the delinquent's neck, and ſealed with the ſeal of the tribunal, with a piece of paper denoting the nature of the crime, and the duration of the puniſhment. Theſe, except impriſonment, are all the puniſhments which the Chineſe laws permit the Mandarins to inflict on criminals; they may indeed condemn to exile, but their ſentence muſt be examined by the ſupreme courts. The capital puniſhments are ſtrangling,

ling. Mean and ignoble perſons are beheaded; for in China, the ſeparation of the head from the body is diſgraceful; on the contrary, perſons of quality are ſtrangled, which is a more honourable death; but if their crimes are very great, they are puniſhed like mean perſons, and ſometimes their heads are cut off, and hung on a tree in the highway. Rebels, traitors, the children who murder a parent, and the ſervants who murder their maſters, are cut in pieces.

The Chineſe eat all manner of fleſh, fiſh, and fowl, whether it be killed, or die in a ditch; but their moſt favourite diſh is horſe-fleſh, eſpecially among the Tartars. The meat is cut into little ſquare bits, before it is brought to table, for they uſe neither knives, forks, or ſpoons, but lade the meat into their mouths with two little chopſticks, which are not bigger than ſkewers. They ſit upon chairs at table as we do, contrary to the cuſtom of all the Eaſt. Every perſon has a little lackered board to himſelf at an entertainment, on which are ſet his meat and rice in china plates; and ſometimes their diſhes are of ſilver. Their liquor is chiefly tea; they have alſo a ſort of brown beer made of wheat, and ſome ſpirits.

At entertainments, every one handles his little chopſticks, and carries the meat to his mouth, when the reſt of the company do. They drink alſo all at once; taking the cup in both hands, they firſt carry it as high as their

heads, and then drink without ſpeaking a word. There ſtands a man to keep time, that one may not eat or drink before another; to begin firſt, or to make another wait, is reckoned extremely rude; when a freſh diſh appears, they flouriſh their chopſticks again, and having taken two or three mouthfuls, the maſter of the ceremonies makes a ſign for them to lay down their chopſticks, which they do exactly in the ſame order they took them up; then the liquor is preſented to them, of which every man drinks as much as he cares for; then they ſit ſilent at table till the maſter of the ceremonies gives the ſign to riſe.

In the ſouthern provinces of China, the inhabitants are tawny; but in the northern provinces, both their ſtature and complexion are much mended. They have flat broad faces, black hair, little dark eyes, ſhort noſes, and thin beards, pulling out moſt of them with tweezers, inſtead of ſhaving; reſerving only whiſkers, and ſome long hairs on the bottom of their chins. The nail on the little finger of the left hand is ſuffered to grow to a great length beyond the finger, and ſcraped and poliſhed with abundance of care, by people of condition; this being looked upon as one of the diſtinguiſhing marks of a gentleman in this part of the world. The Chineſe were formerly proud of the hair of their heads, and uſed to tie it up, as women do, in a roll, but the Tartar ſovereigns have compelled them to ſhave their heads, leaving only one lock in

the middle of the crown, over which they wear a cap, ſhaped like a bell, which does not come ſo low as their ears; and therefore they carry a fan in their hands to ſcreen them from the ſun.

The men wear a veſt with full long ſleeves, which come down to their fingers ends; over the veſt, they wear a looſe coat, ſhorter than the veſt, with ſhort ſleeves; and when they viſit, or receive company, they have a gown thrown over all; they wear alſo ſhirts and breeches, or rather trowzers, which reach down half way their legs; theſe are made of ſattin quilted. They wear alſo ſilk boots, or buſkins, quilted an inch thick; and over the foot put on a ſlipper, with a thick ſole, for the boots have no ſoles. At their girdles they hang their pouch of tobacco, their pipe which is braſs, their handkerchiefs, and the little chopſticks they eat with; and their knife, for they have no pockets. In winter people of diſtinction wear rich furs, lamb ſkins, or quilted cotton. Their ſcymetars or broad ſwords are worn on the left thigh, with the point bending forward.

Magiſtrates, and officers of ſtate, have ſome animal embroidered on their cloaths, either in gold or ſilver, which expreſſes the nature and dignity of their reſpective offices. The military men chuſe lions, dragons, and tigers; and the civil magiſtrates birds.

The features of the women are rather engaging, except their ſhort, bottle noſes. Their complexions alſo are better than thoſe of the men, as they ſeldom go abroad; but what they eſteem their chief beauty are their little feet, which are cramped and bound up ſo hard in their infancy, that they never grow to the natural ſize; the foot of a woman being no bigger than that of a child of three years of age, which makes them move very aukwardly. The ladies dreſs in their hair, though the men are obliged to cut off theirs. In the winter, they wear a cawl or hood over their hair in the northern provinces; and on their bodies a veſt of red, blue, or green ſattin; and the elder ladies black. Over this they wear a looſe gown, with long wide ſleeves, which would reach the ground, if they were not held up. On their feet, they wear embroidered ſhoes with long picked toes.

The emperors of China never appear in public without that ſplendor, that may be neceſſary to attract the reſpect and veneration of the people; but in nothing do theſe monarchs diſplay greater ſplendor, than in the pomp with which they go to the temple to offer ſacrifices to heaven. The particulars of this proceſſion, as given by Father Magalhens, are as follow. Firſt are twenty-four trumpeters, adorned with gold coronets, and twenty-four drums, each ranked in two files; twenty-four men with ſtaves ſix or eight feet long, varniſhed and gilt, follow in the ſame order. Then

Then comes a hundred ſoldiers bearing halberts, on each of which is a ſemi-circle of iron, in form of a creſcent, followed by a hundred ſerjeants at mace, and two officers bearing pikes painted with red varniſh, with flowers and figures in gold. Then appear four hundred lanthorns curiouſly wrought, four hundred flambeaux of a gilt wood, that flame like our torches; two hundred lances charged with huge tufts of ſilk: twenty-four banners, on which are painted the ſigns of the zodiac; and fifty-ſix others that repreſent the celeſtial conſtellations; there are alſo to be ſeen two hundred large fans, with the figures of dragons and other animals; twenty-four umbrellas ſtill more magnificent; and a kind of beaufet filled with utenſils of gold, and borne by the officers of the palace.

The emperor then appears on horſeback, richly dreſſed, ſurrounded by ſix white horſes, whoſe harneſs is covered with gold and precious ſtones; and by a hundred of his life-guards and pages, who bear an umbrella that ſhades him and the horſe, and dazzles the ſight with all the ornaments that man could poſſibly invent. The emperor is followed by all the princes of the blood, by the Mandarins of the firſt order, by the viceroys and principal lords of the court, in all their formalities. After them appear five hundred young gentlemen of quality, attended by a thouſand footmen, dreſſed in carnation ſilk, bordered with flowers, and ſpotted with ſtars

of gold and ſilver. Immediately after appear twenty-ſix men, bearing an open triumphal chariot; and a hundred and twenty bearers ſupport another cloſe one, ſo large, that it might be taken for an entire apartment. Then come four chariots, the two firſt drawn by elephants, and the other two by horſes; each of theſe carriages is guarded by a company of fifty men; the charioteers of the four laſt are richly dreſſed, and the elephants, as well as the horſes, are covered with embroidered houſings. At length this pompous caleade is cloſed by two thouſand mandarine officers, and two thouſand officers of the army, all in rich habits, and marching with a ſolemn gravity.

When perſons of quality pay viſits, when they are upon journies; or when they wait upon the emperor, they always appear with a grandeur that fills a ſtranger with aſtoniſhment. The Mandarins, richly dreſſed, are carried in an open gilt ſedan, upon the ſhoulders of eight or ſixteen perſons, accompanied by all the officers of the tribunal, who ſurround them with umbrellas, and other marks of their dignity. Some walk two and two before them, bearing chains, rods, and eſcutcheons of varniſhed wood, upon which are, in large gold characters, all the titles of honour annexed to their places of truſt, with a baſon on which they beat a certain number of ſtrokes, according to the rank they bear in the province. Other officers follow in the ſame order, and ſometimes

times four or five gentlemen on horſeback bring up the rear.

Thoſe that belong to the army commonly go on horſeback; and, if they are of conſiderable rank, appear at the head of twenty-five or thirty men, well mounted. The princes of the blood at Pekin, are preceded by four of their officers, and followed by a ſquadron of troops, that march without order: the domeſtics wear no liveries; but, according to the quality of their maſter, are dreſſed in black ſattin, or painted linen. Though their horſes are neither fine nor well managed, their trappings and harneſſes are very magnificent. The Mandarins appear with the greateſt magnificence when they travel by water: their barges are of a prodigious ſize, adorned with carving, painting, gilding, and decorated with their arms, flags, and ſtreamers.

The emperor never marches, but at the head, or in the midſt of an army, accompanied by all the lords of the court; then ſcarce any thing is to be ſeen but ſilks, gildings, and precious ſtones; the arms, the harneſs of the horſes, the umbrellas, the ſtreamers, and a thouſand other badges of royal dignity, or of the particular quality of the princes, ſparkle every where. He ſometimes goes into Tartary, to take the diverſion of hunting, where he is attended by forty thouſand men, and he is oftentimes attended by thirty or forty petty Tartarian princes, who come to pay him tribute; and

and on theſe occaſions the train, habits, and tents of the Mandarins are ſurpriſingly magnificent.

In Japan, there is ſcarce any crime but is puniſhed with death, except the criminal be a prince, or petty king, and even thoſe have only the privilege of diſpatching themſelves. In ſuch caſes, the emperor ſends them his orders only by a letter, which, if not immediately complied with, the perſon is executed by an officer of juſtice, and put beſides to the moſt excruciating tortures; or if the offender is a prince of the royal blood, he is baniſhed to ſome barren iſland, where he is ſuffered to ſtarve. Other perſons, immediately upon conviction before a proper judge, are hurried to execution. Cheating of any kind, even at play; a lye, or prevarication before a magiſtrate; theft, though of the ſmalleſt kind; a breach of the peace, a blow, detraction, or other wrong to a man's good character, are all puniſhed with death; and it muſt be a very trifling injury, or be alleviated with ſome very favourable circumſtance, that is ſuffered to eſcape with a pecuniary puniſhment. As for corporal puniſhments ſhort of death, they are ſeldom uſed but by maſters on their ſlaves.

In crimes againſt the government, or againſt the public peace, not only the criminal himſelf, but his parents, brethren, children, and even relations, are all put to death; and at one and the ſame hour, let them be at ever ſo

ſo great a diſtance from each other. For ſuch ſort of crimes, the offenders are generally executed, by ripping up their bowels. For thefts and robberies, they crucify the criminals with their heads downwards, where they are conſigned to a longer or ſhorter torture, according to the nature of the crime; ſo that in the moſt atrocious caſes, they are left to hang on the croſs till they expire, which may not happen in leſs than three, four, or perhaps more days. Criminals convicted of theft, are diſpatched by a dagger, or ſtrangling; and in crimes for open high-treaſon, not only all the relations, but the whole ward undergo the ſame dreadful fate; for in theſe caſes, the law ſuppoſes them all alike worthy of death, for ſuffering ſuch enemies to ſociety to live among them. As for the female relations, they are generally treated with leſs ſeverity; for, except in caſes of high-treaſon, wives and daughters are only ſold for ſlaves.

The Japaneſe dreſs is commonly of ſilk or cotton; woollen cloth being ſcarcely known there. It conſiſts of a ſhort veſt, a long gown over it. and what is ſomewhat ſtrange, a cloak or mantle within doors, which they put off when they go abroad. They commonly go bare-headed, notwithſtanding their being ſhorn, and having only a lock of hair on their poll; but they generally make uſe of an umbrella, which the better ſort have carried over their heads by a ſervant. Every perſon, without diſtinction, wears a ſword or

a dagger by his ſide, and a fan in his hand: and, contrary to the cuſtom of moſt nations, they wear black in their feſtivities, and white in their mournings. A ſtrange ſingularity runs through ſome other of their cuſtoms, ſuch as ſitting down, inſtead of riſing up, at the approach of a ſuperior; ſtanding upright, inſtead of proſtrating themſelves in their ſalutations; and ſeveral other peculiar cuſtoms.

The origin of the Chineſe nation is very uncertain and diſputed, for what their peculiar tradition ſays of it is exploded by men of ſenſe, ſince they pretend to an antiquity anterior not only to the flood, but even to the creation. By ſuch of their records, however, as may be moſt depended on, and are univerſally agreed to by all their learned men, this empire appears to have been governed by its own monarchs above four thouſand years, not by a continued ſeries of them in one family, but by a ſucceſſion of twenty-two families, which have given it, in the whole, two hundred and thirty-ſix princes. Father le Compte's arguments in favour of this account, make it appear as probable as any human writings of that nature can do; and we may not unreaſonably conclude, that ſome of Noah's children or grandchildren, having penetrated through the eaſtern parts of Aſia, might ſettle in the moſt fertile and delightful part of China.

The

The diſcovery of this remote country was made by the Portugueſe, about two hundred years ago; for though indeed it was in ſome meaſure known to the antients, yet its great diſtance from Europe, and the old Chineſe policy not to admit ſtrangers among them, made it impoſſible for either Greeks, or Romans, or any other nation on this ſide the Ganges, to know any thing of the country, or its inhabitants, except what they might gueſs from the commodities brought from thence, which were very few in compariſon of thoſe at preſent exported. When the vaſt improvements in navigation had opened to the Europeans a new way of commerce with China, they were ſo greatly ſurprized at its opulence, and the excellent genius and politeneſs of its inhabitants, eſpecially conſidering them as a people that lived wholly within themſelves, and had received no helps or inſtructions from other nations, that the accounts firſt brought us concerning them, had more the air of romance than truth. Nor were we thoroughly acquainted with the ſtate of the Chineſe nation, till the Jeſuits, and other miſſionaries of the church of Rome, introduced themſelves into favour with the emperor and perſons of the higheſt rank, by their ſuperior ſkill in the mathematical ſciences.

What the Chineſe call their hiſtory, is little more than ſome ſhort minutes, containing the names of princes, who, perhaps never exiſted;

ted; though, if credit might be given to their own accounts, ſuch care has been taken to preſerve an impartial hiſtory of this country, as never was obſerved by any other people; for they relate, that there are a certain number of regiſters, appointed by the government, to record all material tranſactions, and daily minute down the words and actions of their princes, with their reſpective remarks upon them; and that, without conſulting one another, they throw their ſeveral papers into an office which is never opened, while the reigning prince, or any of that family remain upon the throne: but when the crown devolves upon another houſe, the doors are opened, and all theſe records are put in order and examined, out of which the hiſtory of preceeding reigns is compoſed, and the examples of their beſt princes recommended to their ſucceſſors, while the conduct of others is ſeverely animadverted upon. Thus their princes, like thoſe of Egypt antiently, undergo a kind of formal trial after their deaths, for the inſtruction of their ſucceſſors.

The Chineſe hiſtorians pretend, that the empire of China is upwards of 40,000 years old; though their records, or hiſtories, do not reach back farther than 20,000 years; yet they aſcribe the invention of all arts and ſciences, even huſbandry, architecture, and cloathing, to ſeveral of their princes, who have reigned within theſe three or four thouſand years; though it can ſcarce be ſuppoſed, if

the world had been 40,000 years old, but ploughing, planting, building, and cloathing, would have been underſtood long before the laſt 4000 years.

As moſt legiſlators and founders of kingdoms have apprehended it neceſſary to derive their origin and authority from heaven, to induce their ſubjects to ſubmit to their dominion, ſo the firſt monarch of China, Fohi, who is ſuppoſed to have lived about the time of the flood, pretended, that he was ſent from heaven to inſtruct and govern mankind. It was this prince their hiſtories relate, that taught them cloathing, and to diſtinguiſh the ſexes by their habits: he is alſo ſaid to have firſt taught them their characters and muſic, and to have reigned 115 years. Fohi was ſucceeded by Chintong, who is ſaid to have taught his ſubjects huſbandry and phyſic; and his ſucceſſor, Hoangti, is ſaid to have taught them aſtronomy, the art of ſpinning and weaving ſilk, navigation, and the uſe of wheel carriages. To the next prince, Chaohao, they aſcribe the dividing the country into provinces, and the inſtitution of civil government. And their fifth emperor, Tchuenhio, annexed the prieſthood to the crown, and prohibited all men to offer ſacrifices but himſelf, and ſuch as he deputed. Their ſeventh emperor gave his ſubjects the liberty of taking as many wives as they pleaſed, and had four himſelf. Their eighth emperor Tchi, acting tyrannically, was depoſed, and ſucceeded by his brother Yao,

who is ſaid to have been a prince of uncommon virtue and piety: he made canals, drained the bogs, and cut the mountains into level ſquares, to make them fit for tillage. This monarch is ſaid to have diſinherited his ſon, becauſe he proved a vicious prince; and transferred the kingdom to Chun, a miniſter of great probity, who began a new race of kings about 2200 years before Chriſt.

Tcheaou, a tyrannical prince, who had a queen as cruel as himſelf, was depoſed by the people about 1000 years before the birth of Chriſt, and a prince of another family advanced to the throne. In the reign of Ping Vang, about the year 777 before Chriſt, ſeveral of the tributary princes rebelled, and rendered themſelves independent of the emperor. From this reign it is, that their great philoſopher Confucius began his hiſtory of the civil wars of the vaſſal princes, which laſted near 200 years. Confucius, not finding his advice regarded, retired from court ſome time before he died. His works are now of ſuch authority, that the Chineſe appeal to him in all diſputes; and his poſterity are the only nobility in China, except the princes of the blood.

In the reign of Gin Tſong, about the year of our Lord 1144, the Tartars made themſelves maſters of the northern provinces of China. In the reign of Tonan Tſong, the weſtern Tartars conquered part of China; and

and Chi Tſon their prince, made Pekin the ſeat of his empire; he cauſed a great canal to be cut, which runs from Canton almoſt to the city of Pekin, a thouſand miles in length; beſides a great many other canals for the convenience of tranſporting merchandiſe from one province to another. The emperor Tai Ting, the laſt of the Tartarian race, loſt his crown by attempting an alteration in religion: he countenanced the Lama's, or Tartarian prieſts, which united the Chineſe againſt him. Their leader was a bonze, or Chineſe prieſt, who, having driven the Tartars out of the country, mounted the throne about the year 1400.

In the year 1498, the Portugueſe, having doubled the Cape of Good-Hope, began a trade with China, and poſſeſſed themſelves of the iſland of Macao, about the year 1517; and had the ſole trade to China, for upwards of a 100 years. In the mean time, ſeveral Tartar nations, being united under the king of Niuche, invaded the northern provinces of China; and a famine happening in ſome of the ſouthern provinces about the ſame time, occaſioned an inſurrection; and Lycungz, one of the chief of the malecontents, marched with a numerous army up to Pekin, and laid ſiege to that city, which was betrayed to him by the eunuchs of the court. The emperor, and moſt of his family, ſeeing all reſiſtance vain, choſe to die by their own hands, rather than be made priſoners by the rebels; upon

which Lycungz cauſed himſelf to be proclaimed emperor, and then advanced againſt Uſanguay, the imperial general, who, receiving advice of the uſurpation of Lycungz, made peace with the Tartars, who conſented to join him againſt the uſurper.

This obliged Lycungz to retire to Pekin; but not thinking himſelf ſtrong enough to defend that city againſt the united forces of Uſanguey and Xunchi, the Tartarian prince, he therefore marched into the province of Xenſi, whither he was purſued by Uſanguey; but Xunchi, remaining at Pekin, in the mean while cauſed himſelf to be proclaimed emperor. However, upon the return of Uſanguey, after the defeat of the rebels, Xunchi offered to divide the kingdom with him; and Uſanguey, not being in a condition to force the Tartars to abandon Pekin, agreed to the propoſal, and retired to the provinces which were allotted him; but having augmented his army, he required Xunchi to quit the kingdom; and on his refuſal ſeveral battles were fought, in which Uſanguey was generally ſucceſsful; however being killed in a ſubſequent engagement, his army diſperſed, and the reſt of the provinces were reduced under the dominion of Xunchi the Tartar, about the year 1644; he did not, however, long enjoy the throne, but died ſoon after the conqueſt, and was ſucceeded by his ſon Amavan, an infant of ſix years of age, leaving Amavan his uncle, regent till his ſon ſhould come of age.

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The regent diſcharged his truſt with ſuch fidelity, that every thing remained in peace during the minority. He did not think fit to make any alterations in the laws and cuſtoms of China, only compelled the Chineſe to cut off their hair, and take the Tartar habit, that it might not be diſcerned how inconſiderable a people the Tartars were when compared with the Chineſe; and he had the pleaſure of delivering up the empire to his nephew entire, both the Tartar and Chineſe princes ſubmitting to his government.

By this great revolution, the Chineſe ſeem rather to be gainers than loſers; their country is ſtill the ſeat of the government; Tartary is become a province to China; and they are exempted from the charge of maintaining armies upon the frontiers, ſince the union. However, the Chineſe, who were much averſe to the Tartar government, fled to the Philippines, Java, and other iſlands in the Indian ſeas, where they ſtill retain their former habits, and the cuſtom of wearing their hair: and the poſterity of Xunchi, the Tartar, remain upon the throne of China to this day.

Japan was not known, or even heard of in this part of the world, till the year 1542, when it was diſcovered accidentally, by Antonio de Mota, a Portugueſe commander, who was driven upon the coaſt of thoſe iſlands, in a voyage towards China: ſoon after that diſcovery, the Portugueſe began to trade with

the Japaneſe, and had the ſole trade thither for upwards of ſixty years, when the Engliſh and Dutch arrived there. However the Portugueſe ſtill continued to trade thither, and having introduced their miſſionaries, made a great number of Popiſh proſelytes, until the year 1630, when, preaching up the Pope's ſupremacy, the Japaneſe government apprehended that they were in a conſpiracy againſt the ſtate; upon which an order was iſſued out for maſſacring or baniſhing all the Chriſtians; and a reſolution was taken never to admit any more of that religion into the country, except the Dutch, who probably inſinuated to the court of Japan, that the Portugueſe miſſionaries were about to abſolve the Japaneſe ſubjects from their allegiance, and perſuade them to acknowledge the Pope for their ſovereign. However that may be, no Europeans are permitted to trade thither, but the Dutch; and even they are ſcarce ever ſuffered to come on ſhore, ſo that we are totally ignorant of the hiſtory of thoſe iſlands.

THE

THE BEAUTIES OF NATURE AND ART DISPLAYED, IN A TOUR through the WORLD.

CHAP. V.

OF ASIATIC TARTARY.

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Of ASIATIC TARTARY.

SECT. I.

A general Account of Aſiatic Tartary.

ASIATIC Tartary, all except Chineſe Tartary, which has been deſcribed in the preceding chapter, is ſituated between 53 and 72 degrees of north latitude, and between 40 and 135 degrees of eaſt longitude. Its greateſt length from weſt to eaſt is 3000 miles, and its greateſt breadth from north to ſouth is 2000 miles. It is bounded by the frozen ocean on the north; by the pacific ocean on the eaſt; by China, India, Perſia, and the Caſpian ſea on the ſouth; and by European Ruſſia on the weſt.

The moſt general diviſions of Aſiatic Tartary, are thoſe five following: the north-eaſt diviſion, the ſouth-eaſt diviſion, the north-weſt

weſt diviſion, the ſouth-weſt diviſion, and the middle diviſion.

1. The north-eaſt diviſion comprehends the Kamtſchatka Tartars, whoſe chief city is Kamtſchatka, and the Jakutſkoi Tartars, whoſe chief city is Jakutſkoi. 2. The ſouth-eaſt diviſion comprehends the Bratſki Tartars, whoſe chief city is Bratſki, and the Thibet and Mongul Tartars, whoſe chief cities are Poion and Kudak. 3. The north-weſt diviſion comprehends Samoieda Tartary, the chief city of which is Mangaſia, and Oſtiac Tartary, the chief city of which is Koreſkoi. 4. The ſouth-weſt diviſion comprehends Circaſian and Aſtracan Tartary, with their chief cities Terki and Aſtracan; and 5. The middle diviſion comprehends Siberia, the chief city of which is Tabolſki, and Kalmuc and Uſbec Tartary, with their chief cities Bochara and Samarcand.

The principal rivers of this vaſt country are the Wolga, the Tobol, the Obey, and the Irtis, each of which has been already mentioned; * the Geneſa, or Jenſka, which riſes in Kalmuc Tartary, runs north, and falls into the Frozen Ocean; the Lena, which lies farther eaſt, and running parallel to the Geneſa, falls into the ſame ocean; and the Argun, which divides the Ruſſian and Chineſe empires.

* See vol. IX. p. 24. & ſeq.

The

The air in the north of Tartary is exceſſive cold, the earth being covered with ſnow nine months in the year; the ſouthern provinces lie in a temperate climate, and would produce all manner of corn, and moſt other vegetables, if there were hands to cultivate the ſoil: but thoſe that inhabit it, lead a rambling vagrant life, driving great herds of cattle before them to ſuch parts of the country, where they can meet with the beſt paſture, and ſeldom remain long enough in a place to reap a crop of corn, if they ſhould plough and ſow the lands where they pitch their camps.

SECT.

SECT. II.

A particular Account of the moſt curious natural Productions of Aſiatic Tartary, *in the Animal, Vegetable, and Foſſil Kingdoms; of remarkable Mountains or Volcano's; of medicinal and other ſingular Springs; and of other natural Objects of Curioſity.*

ANIMALS, VEGETABLES, *and* FOSSILS.

THE principal riches of theſe countries conſiſt in the great number of wild beaſts, with which they abound; and among which are foxes, ſables, ſtone foxes, hares, marmottes, ermins, weaſels, wolves, rein-deer wild and tame, and ſtone-rams.

In Kamtſchatka, there is a ſort of field-rat, which have fine roomy neat neſts, ſpread with graſs, and divided into different apartments, where in ſummer they lay up proviſions againſt the winter, never touching their winter proviſions, ſo long as they can find any food in the fields. They change their habitations like the wandering Tartars; and ſometimes, for a certain number of years, they all leave Kamtſchatka,

ſchatka, and go to ſome other place: but this ſort of rat appears to be no other than the Leming already deſcribed *.

In Kamtſchatka and other parts in the north of Tartary, while the ſnow is upon the ground, they travel in ſledges drawn by dogs, which are eſteemed ſwifter and longer lived than any other dogs; and this may be attributed to their light ſimple food, which is fiſh. In the ſpring, every one lets his dogs at liberty, without taking any care about them: then they feed on what they can get in the fields, where they dig for the mice; and in the rivers they catch fiſh. In the month of October, the dogs are called home by their reſpective maſters, who tie them up near their huts, till they loſe a great deal of their fat, that they may be lighter for the roads. Theſe dogs alſo give certain ſigns of an approaching ſtorm; for when they ſtop, if they ſcrape the ſnow with their feet, it is adviſeable, without loſs of time, to look out for ſome village, or other place of ſafety. And it is ſaid, the dogs here ſerve inſtead of ſheep, becauſe their ſkins are uſed for cloaths. Thoſe dogs which are bred up to hunt the deer and wild rams, ſables, foxes, and the like, are ſometimes fed with jackdaws, which, it is obſerved, make their ſcent the ſtronger for finding out birds and wild beaſts.

Among the remarkable birds of theſe countries, is a kind of Cormorant found chiefly on

* See Vol. VIII. p. 134.

the coaſt of Kamtſchatka: this is a ſea-bird, about the bigneſs of a gooſe, with a ſtraight reddiſh bill, about five inches long, and four noſtrils, ſuch as other Cormorants have: it is webfooted, and appears frequently near the ſhore, but cannot ſtand ſtraight upon dry ground; its feet being ſo near the tail that it is not able to balance its body: it flies ſlow even when hungry, but when full of meat it cannot raiſe itſelf from the ground: theſe birds are killed by the natives principally for the ſake of their bladders, which they uſe inſtead of corks to their nets; and they are taken by being angled for as fiſhes are.

Upon the coaſt of Kamtſchatka are found the Procellaria or ſtorm-birds, which are ſo called from prognoſticating ſtorms, by flying low, and ſkimming the ſea. Upon the coaſt of this country is alſo found the bird called Mergulus Marinus, with a bill as red as vermillion, and a white tuft upon its head.

In the ſeas of Kamtſchatka are found the ſea-lion and cat, which in their uſual ſtructure differ very little from the ſea-horſe and ſea-calf already deſcribed *. The necks of theſe animals are bare, excepting a ſmall mane of curled hair. They have a middle ſized head, ſhort ears, a ſnout ſhort and drawn up like a pug-dog's; great teeth and webbed feet; they are moſt frequently about rocky ſhores, or rocks in

* See Vol. VIII. p. 139, and 145.

the

the ſea, where they roar in a ſtrange frightful manner. Although in appearance and ſize this animal ſeems to be very dangerous, and marches with ſuch a fierce mien, that he looks like a true lion, yet he is ſuch a coward, that, at the ſight of a man, he hurries into the water; and when he is ſurprized aſleep, and awakened either by a loud cry, or by a blow, he is in the utmoſt terror, endeavouring to make his eſcape: but when he finds that impoſſible, he will then attack his enemy with the greateſt fierceneſs, ſhaking his head, and roaring very terribly; and then the boldeſt muſt endeavour to ſave himſelf from his rage. When the natives of Kamtſchatka find theſe lions aſleep, they ſhoot poiſoned arrows at them, and get off as faſt as poſſible; and the wounded animal, unable to bear the pain ariſing from the ſalt-water in the poiſoned wound, runs himſelf aſhore, where he is killed outright with darts or arrows.

This game is ſo honourable among the natives, that the man who has killed moſt of theſe beaſts is eſteemed the greateſt hero; for which reaſon many engage in this dangerous hunting, not only for the fleſh, which is looked upon as very delicate, but rather for the honour that attends it. Of the ſkins of the ſea-lion, they make cords, ſhoe ſoles and ſhoes. They are viviparous animals, and the females have two, three, and ſometimes four young ones.

The ſea-cat is about half the ſize of the ſea-lion, reſembling the ſeal in form; they have a ſnout larger than the ſea-lion, and larger teeth, with eyes like cow's eyes, ſhort ears, naked and black paws, and black hair mixed with grey. The male and female differ ſo much in form, that one who does not carefully examine them, would take them for different ſpecies of animals. The male has from eight to fifteen, and even ſometimes fifty females, whom he guards with ſuch jealouſy, that he does not allow any other to come near his miſtreſſes; and though many thouſands of them lie on the ſame ſhore, yet every family keeps apart, and ſometimes a family conſiſts of 120. The males who are old, and have no miſtreſſes, live apart; theſe ſometimes lie aſleep a whole month without nouriſhment, and are the fierceſt of all, attacking every thing that paſs them.

Among the different kinds of vegetables common to theſe countries with other parts of the world, the moſt uſeful wood is the larch-tree, which at Kamtſchatka in particular ſerves for building the houſes and the forts, and even the boats and ſhips. Here are many larch-trees, which the inhabitants ſtrip of their bark while yet green, and cutting it in ſmall pieces like vermicelli, eat it with dried caviare. They alſo ferment this bark with the juice or ſap of the birch, which makes an agreeable drink.

Their principal nouriſhment is from the nuts of a tree very common in this country, called the

the Slantza, which is of the cedar kind, only that it is much leſs, and creeps along the ground; and the nuts are alſo a powerful remedy againſt the ſcurvy. In Siberia and Kamtſchatka grows a root called Saranne, which ſerves the natives inſtead of groats, and which they alſo uſe as a confection in tarts and and broths; and from which they diſtil ſpirits. The Kamtſchadales uſe alſo the French willows for food; for they boil it with their fiſh, and uſe the leaves as tea: but the greateſt uſe is made of its pith, which they put in ſeveral diſhes, and ſerve it up green as a deſert. This vegetable boiled, gives a thick ſweet wort, which, when fermented, makes no diſagreeable drink, and from which they alſo diſtil a ſpirit; and it affords them likewiſe a very ſtrong vinegar.

The Kamtſchadales feed alſo upon two plants, one called Shelmina, and the other Morkovai. The firſt of theſe plants has a root blackiſh without, and white within: it ſends out from one root two or three ſtalks, about a man's height, which, near the root, are about a finger thick; but above, ſomewhat thinner. The leaves ſhoot out from long branches, which grow all over the ſtalk. Their upper part is green and ſmooth, and their lower rough, with high reddiſh veins; the ſtalk is triangular, reddiſh, hard, and rough. At the top of the plant is a flower, reſembling that of the ſervice-tree. It has four oval piſtils, flattened in the ſides, with downy edges; in each

of which are contained two longiſh ſeeds; they are ſurrounded by ten white ſtamina, riſing above the flower; the anthera being likewiſe white. This plant is eaten in the ſpring, and the root of it is preſerved for winter, when it is boiled for a gruel. It has ſome reſemblance in taſte to the piſtachio nut.

The Morkovai looks and taſtes like carrots, and is eaten green in the ſpring; and here is another root called Kotkonia, which is eaten both freſh and dried with caviare: this root has alſo a delicious fruit, which muſt be eaten as ſoon as gathered. The Biſtort grows in great plenty in Kamtſchatka, where the natives eat it with caviare freſh or dried; and in theſe countries is a vaſt number of medicinal, as well as of poiſonous plants.

In Siberia, there are ſeveral gold and ſilver mines; and it abounds with iron and copper. Copper ore has been found in Kamtſchatka, together with native ſulphur. Here is alſo found tripoly and ochre, and a kind of purple-coloured earth; together with ſmall cherry-coloured cryſtals. This country alſo abounds with a ſort of foſſil called Fluſſe, which the Ruſſians call native glaſs, and of which the inhabitants formerly made knives, axes, lancets, and darts. The inhabitants of Kamtſchatka find near the ſprings of rivers pellucid ſtones, which they uſe inſtead of flints, and are reckoned Carnelians by the Ruſſians. Some ſmall pellucid

lucid ſtones, of a yellowiſh colour, like corals, are found on the banks of ſeveral rivers; and in many parts of this country are found great numbers of Hyacinths. Amber is gathered near the ſea coaſts; and in ſome hills is found a ſoft kind of bolus, of a fattiſh creamy taſte, which is uſed as an excellent remedy in fluxes.

REMARKABLE MOUNTAINS, *or* VOLCANO'S; MEDICINAL SPRINGS, *and* RIVERS.

THERE are ſeveral Volcano's or Burning Mountains in Siberia; and in Kamtſchatka there are three ſuch Volcano's, which have for many years thrown out a continual ſmoke, but flame only at times; and in 1737, there was a dreadful eruption of one of theſe mountains, which however laſted no longer than 24 hours. This eruption was followed by a terrible earthquake, which overturned moſt of the huts in the country, ruined thouſands of the inhabitants, and deſtroyed many lives. It was attended by a prodigious commotion of the waters; and the ſea, which roſe mountains high, poured in upon the land; and, being ſoon afterwards carried back, returned more violently than before; and the earthquake and commotion of the waters continued, with ſome intervals, for ſeveral months. There was an eruption of another of theſe mountains in the year 1739, which was followed by an earthquake; the third mountain burnt furiouſly from the year 1727 to 1731, and the laſt eruption of this mountain was in 1737, which laſted a whole week.

In theſe countries, there are ſeveral hot ſprings, particularly in Kamtſchatka, where there are ſome hot ſprings which throw out their

their waters, like artificial water-works, about a foot or a foot and a half high, with a conſiderable noiſe; but there are two large wells, ſituated in a bottom, which merit particular mention. One is five, and the other three fathoms diameter; the firſt ſpring is one fathom and an half, and the other one fathom deep. In theſe ſprings the water boils up with white bubbles, with ſuch a noiſe, that ſcarce any other noiſe can be heard near them. The vapour is very thick; and the water is diſtinguiſhed from all others, by a black matter like Chineſe ink, which ſwims upon the top, and ſticks ſo to the fingers, that it is with difficulty waſhed off: the water itſelf is thick, and ſtinks like rotten eggs.

In Kamtſchatka, beſides ſprings, there are ſeveral rivers which never freeze; and there is ſcarce a river in this country, which has not ſome very large openings, even in the moſt ſevere froſts.

SECT.

SECT. III.

Remarkable Laws, Cuſtoms, and Traditions, of the Aſiatic Tartars.

BEFORE the Ruſſians conquered Kamtſchatka, the natives lived in perfect freedom, having no chief, being ſubject to no law, nor paying any taxes; the old men, or thoſe who were remarkable for their bravery, bearing the principal authority in their villages, though none had any right to command, or inflict puniſhment. Their preſent manner of living is ſlovenly to the laſt degree; they never waſh their hands nor face, nor cut their nails; they eat out of the ſame diſh with the dogs, and every thing about them ſtinks of fiſh; they never comb their heads, but men and women plait their hair in two locks, binding the ends with ſmall ropes; thoſe that have not natural hair ſufficient wear falſe locks, ſometimes as much as will weigh ten pounds, which makes their hair look like a haycock: they are, in ſhort, perhaps the naſtieſt nation on the earth.

Their chief happineſs conſiſts in idleneſs, and ſatisfying their natural luſts and appetites; theſe incline them to ſinging, dancing, and relating love ſtories; theſe amuſements they

they will procure even at the hazard of their lives; for they think it more eligible to die, than to lead a life that is disagreeable to them, which opinion frequently leads them to self-murder. They are chiefly employed in providing what is absolutely necessary for the present, and take no care for the future: they have no notion of riches, fame, or honour, therefore covetousness, ambition and pride, are unknown among them; on the other hand, they are careless, lustful, and cruel, which occasions frequent quarrels among them, sometimes with their neighbours, not from a desire of increasing their power, but from some other causes, such as carrying off their provisions, or their women.

Their trade is likewise not so much calculated for the acquisition of riches, as for procuring the necessaries and conveniencies of life; they sell their sables and other skins; and in exchange receive cloaths made of deer skins, and other hides: among themselves, they exchange what they abound with for what they want, as dogs, boats, nets, and provisions; and this kind of barter is carried on under a great show of friendship; for when one wants any thing that another has, he goes freely to visit him; and, without any ceremony, makes known his wants, although perhaps he never had any acquaintance with that person before. The landlord, according to the custom of the country, presents his guest whatever he has

has occaſion for, and afterwards returns the viſit, and is received in the ſame manner.

They have filled every place they have any idea of with different ſpirits, which they worſhip and fear more than they do God; they offer them ſacrifices upon every occaſion; and ſome carry little idols about with them, or have them ſet up in their dwellings; but with regard to God, they not only neglect to worſhip him; but, in caſes of troubles and misfortunes, they curſe and blaſpheme him: their manners are inconceivably rude; and they never uſe any civil expreſſion or ſalutation; their diſcourſe betrays the moſt conſummate ignorance; they keep no account of their age, though they can count as far as one hundred; but this is very troubleſome to them, and without their fingers they cannot tell three: they reckon ten months in the year, ſome of which are longer, and ſome ſhorter; for they do not divide them by the changes of the moon, but by the order of particular occurrences that happen in thoſe regions; they commonly divide one year into two, ſo that winter is one year, and ſummer another; they do not diſtinguiſh the days by any particular appellation, nor form them into weeks or months, nor yet know how many days there are in the month or year; they mark their epochas by ſome remarkable event or other.

At the time of an eclipſe they carry fire out of their huts, and pray the luminary eclip-

ted

ſed to ſhine as formerly; they know only three conſtellations, the great bear, the pleiades, and the three ſtars in orion, and have names only to the principal winds.

Their laws in general tend to procure ſatisfaction to the injured party: if any perſon kills another, he is to be put to death by the relations of the perſon ſlain: they burn the hands of perſons who have been frequently caught in theft; but for the firſt offence, the thief muſt reſtore what he has ſtolen, and live in ſolitude the reſt of his days, without hopes of any aſſiſtance from others. They have a notion, that they can puniſh an undiſcovered theft, by burning the ſinews of the Stone Buck in a public meeting, with many ceremonies of conjuration; believing that, as thoſe ſinews are contracted by the fire, ſo the thief will have all his limbs contracted. They never have any diſputes about their lands or their huts, every one having land and water more than is ſufficient for his wants.

The habitations of the Kamtſchadales conſiſt of huts, which are ſurrounded by an earthern wall or palliſadoe, and are built in the manner following: a hole is dug in the earth, about five feet deep, the breadth and length of which is proportioned to the number of people deſigned to live in it. In the middle of this hole are planted four thick wooden pillars; over theſe balks are laid, upon which the roof or cieling is formed; and

in the middle a ſquare opening is left, which ſerves for a window and chimney; this is covered with graſs and earth, ſo that the outward appearance is like a round hillock; but within the huts are of an oblong ſquare form; the fire place is in one of the long ſides of the ſquare: between the pillars round the walls are benches, upon which each family lies ſeparately, but on that ſide oppoſite to the fire there are no benches, it being deſigned for the kitchen furniture, in which they dreſs victuals for themſelves and their dogs. The walls of theſe huts are adorned with mats made of graſs.

The entrance into the huts is by ladders, commonly placed near the fire hearth, and there the Kamtſchadales live all winter; but towards ſummer, they remove into other huts, which ſerve them alſo for magazines; when they return from fiſhing and hunting in the harveſt, they leave their dry fiſh there, till they can fetch it in the winter, and this without any guard, only taking away the ladders.

The women in Kamtſchatka are the only taylors and ſhoemakers; for they cut out and make the cloaths, ſhoes and ſtockings, and dreſs the ſkins of which they are made; and the women are likewiſe employed in conjuration, and curing the ſick. The cloaths of the Kamtſchadales are for the moſt part made of the ſkins of deer, dogs, ſeveral ſea and land animals, and even of the ſkins of birds; frequently

quently joining thoſe of different animals in the ſame garment; they make the upper garments in two faſhions, ſometimes cutting the ſkirts all of an equal length, and ſometimes leaving them long behind, in form of a train; they are made of deer ſkins, with wide ſleeves, of a length to come down below the knee, and there is a hood or cawl behind, which in bad weather they put over their heads; they commonly wear two coats, the under coat with the hair ſide inwards, the other ſide being dyed with alder, and the upper, with the hair outward. The dreſs of the men and women differs only in their under cloathing, and the covering of their feet and legs; the women have an under garment which they commonly wear at home, conſiſting of breeches and waiſtcoat ſewed together.

In travelling with dogs, the Kamtſchadales uſe thoſe that are gelded, and generally yoke four to a ſledge; they drive their ſledges ſitting on the right ſide, with their feet hanging down; and it would be looked upon as a diſgrace for any one to ſit in the ſledge, or to make uſe of any perſon to drive them, no body doing this but the women. From the make of their ſledges a man is obliged to keep the exacteſt balance, otherwiſe he is liable, from the height and narrowneſs of them, to be overturned, and in a rugged road, this would be very dangerous, as the dogs never ſtop till they come to ſome houſe, or are

entangled by ſomething upon the road. After a deep ſnow, there is no travelling with dogs, till a road is made, which is effected by a man going before upon ſnow ſhoes, which are made with two thin boards ſeparated in the middle, and bound together at the ends with thongs; the fore part is bent upwards, and a place is made to ſlip in the foot. The greateſt danger is when a ſtorm of driven ſnow ſurpriſes them: then they are obliged with all haſte to ſeek the ſhelter of ſome wood, where they ſtay as long as the tempeſt laſts, which is ſometimes a whole week; they hide themſelves commonly in caves or holes of the earth, wrapped in their furs; and when thus covered, they move or turn with the greateſt caution, leſt they ſhould throw off the ſnow, for under that they lie as warm as in their common huts; they are however ſometimes ſmothered with ſnow, and ſometimes frozen to death.

The Kamtſchadales have ſuch frequent quarrels among themſelves, that ſeldom a year paſſes without one village or other being entirely ruined, the end of thoſe wars is to take priſoners; ſometimes the neighbouring villages go to war for quarrels that happen among the children, or for neglecting to invite each other to their entertainments: theſe wars are carried on more by ſtratagem than bravery; for their manner of attack is, by ſtealing in the night-time into the enemy's village, and ſurpriſing the inhabitants, by ſecuring the

the mouths of the huts, and ſuffering no body to come out, but ſuch as ſubmit to be bound; their arms are bows and arrows, and ſpears: their bow-ſtrings are the blood-veſſels of the whale; their arrows are pointed with flint-ſtones or bone, and are all poiſoned; their ſpears are likewiſe pointed with flint.

When a Kamtſchadale deſires the friendſhip of any of his countrymen, he invites him to his hut, and for his entertainment, dreſſes as much of his beſt victuals as might ſerve ten perſons. As ſoon as the ſtranger comes into the hut, which is made very hot for his reception, both the gueſt and his landlord ſtrip themſelves naked, upon which the landlord ſets before the gueſt great plenty of victuals, and while he is eating it, the hoſt continues to throw water upon red hot ſtones, till he makes the place inſupportably hot. The ſtranger endeavours all he can to bear this exceſſive heat, and to eat up all the victuals that were dreſſed; and the landlord endeavours to compel his friend to complain of the heat, and to beg to be excuſed from eating all up. It is reckoned a diſhonour to the landlord, and a mark of niggardneſs, ſhould the gueſt be able to accompliſh this; he himſelf eats nothing during the whole time, and is allowed to go out of the hut, but the ſtranger is not allowed to ſtir till he acknowledges himſelf overcome. At theſe feaſts, they ſo over eat themſelves, that frequently they cannot bear the ſight of victuals for ſome

days, and are ſcarce able to move from repletion.

When the ſtranger is gorged, and can no longer endure the heat, he purchaſes his diſmiſſion with preſents of dogs, cloaths, or whatever elſe is moſt agreeable to the landlord: this however is reckoned no injury, but a proof of friendſhip, and he expects in turn to uſe his friend in the like manner. In their banquets, they treat their gueſts much in the ſame way, only they do not torment them with heat, nor expect any preſents. When they entertain with the fat of ſeals or whales, they cut it into ſlices, and the landlord kneeling before his company, with one of theſe ſlices in one hand, and a knife in the other, thruſts the fat into their mouths, and with his knife cuts off all that hangs out. Whoever wants any thing from any of his gueſts, may generally have it upon theſe occaſions, becauſe it is reckoned diſhonourable for the gueſt to refuſe his generous landlord any thing.

When a Kamtſchadale reſolves to marry, he looks out for a bride in ſome of the neighbouring villages, ſeldom in his own; and when he finds one to his mind, he diſcovers his inclination to the parents, deſiring that he may have the liberty of ſerving them for ſome time: this permiſſion he eaſily obtains, and during his ſervice, he ſhows an uncommon zeal, in order to ſatisfy them of what he can do. After having thus ſerved, he deſires liberty

berty to ſeize his bride; and if he has happened to pleaſe the parents, his bride, and her relations, this is preſently granted: but if they ſhould diſapprove of the match, they give him ſome ſmall reward for his ſervices, and he departs.

When a bridegroom obtains the liberty of ſeizing his bride, he watches every opportunity of finding her alone, or in the company of a few perſons; for during this time, all the women in the village are obliged to protect her; beſides ſhe has two or three different coats, and is ſwaddled round with fiſh nets and ſtraps; ſo that ſhe has little more motion than a ſtatue. If the bridegroom happens to find her alone, or in company with a few, he throws himſelf upon her, and begins to tear off her cloaths, nets, and ſtraps; for ſtripping the bride naked, conſtitutes the ceremony of marriage. This is not always an eaſy taſk; for though ſhe herſelf makes but ſmall reſiſtance, and indeed ſhe can make but little; yet, if there happen to be many women near, they all fall upon the bridegroom without mercy, beating him, dragging him by the hair, ſcratching his face, and uſing every other method they can think of to prevent him from accompliſhing his deſign. If the bridegroom is ſo happy as to obtain his wiſh, he immediately runs from her, and the bride, as a proof of her being conquered, calls him back, with a ſoft and tender voice: thus the marriage is concluded. This victory is ſeldom obtained at once; but ſometimes the

conteſt

conteſt laſts a whole year; and after every attempt, the bridegroom is obliged to take ſome time to recover ſtrength, and to cure the wounds he has received.

As ſoon as the above ceremony is over, the bridegroom is at liberty the next night to go to his bride's bed; and the day following, without any ceremony, he carries her off to his own village. After ſome time, the bride and bridegroom return to the bride's relations, when the marriage feaſt is celebrated in the manner following, as it is related by a perſon who was an eye witneſs of ſuch a feaſt in 1739. The bridegroom, his friends, and his wife, viſited the father in three boats. All the women were in the boats, and the men being naked, puſhed them along with poles. About one hundred paces from the village to which they were going, they landed, began to ſing, and uſed conjurations with tow faſtened upon a rod, muttering ſomething over a dried fiſh's head, which they wrapped in the tow, and gave to an old woman to hold. The conjuration being over, they put upon the bride a coat of ſheep's ſkin, and tied four images about her: thus loaded, ſhe had difficulty to move; they went again into their boats, and came up to the village, where they landed a ſecond time; at this landing-place, a boy of the village met them, and taking the bride by the hand, led her along, the reſt of the women following.

When

When the bride came to the hut, they tied a ſtrap round her, by which ſhe was let down the ſtairs, the old woman who carried the fiſh's head going before her; the head ſhe laid down at the foot of the ſtairs, where it was trodden upon by the bride and bridegroom, and all the people preſent, and then thrown into the fire. All the ſtrangers took their places, having firſt ſtripped the bride of her ſuperfluous ornaments. The bridegroom heated the hut, and dreſſed the victuals, which they had brought with them, and entertained the inhabitants of the village. The next day, the landlord entertained the ſtrangers with great ſuperfluity, who on the third day departed; the bride and bridegroom only remained, to work ſome time with their father. The ſuperfluous dreſs which was taken from the bride, was diſtributed among the relations, who were obliged to return them preſents of far greater value.

The above mentioned ceremonies only relate to a firſt marriage: for in the marriage of widows, the man and woman's agreement is ſufficient, but he muſt not take her to himſelf, before her ſins are taken away; this can only be done by ſome ſtranger's firſt lying with her for once; but as this taking off of ſin, is looked upon by the Kamtſchadales as very diſhonourable for the man, it was formerly difficult to find one to undertake it, ſo that the widows were at a great loſs, before the Ruſſian Coſſacks came amongſt them, ſince

ſince which time, they have been in no want of ſtrangers to take away their ſins.

Marriage is forbidden only between father and daughter, and mother and ſon; their divorce conſiſts only in a man's ſeparating beds from his wife; in ſuch caſes, the man immediately marries another wife, and the woman accepts of another huſband, without any farther ceremony. A Kamtſchadale has two or three wives, with whom he lies by turns; ſometimes he keeps them all in one hut, and ſometimes they live in different huts. When the women go abroad, they cover their faces with a ſort of veil, and if they meet any man upon the road, and cannot go out of the way, they turn their backs to him, and ſtand till he is paſſed. In their huts they ſit behind a mat, or a curtain made of nettles; but if they have no curtain, and that a ſtranger comes into the hut, they turn their faces to the wall, and continue their work.

The women of Kamtſchatka have commonly ſuch eaſy births, that it is no extraordinary thing to ſee one of them go out of the hut immediately after delivery, about her ordinary buſineſs, or carry her child in her arms without any change in her countenance. The women are delivered in preſence of as many perſons as are in the village, without diſtinction of age or ſex. They can hardly be ſaid to have profeſſed midwives, and, for the moſt part, the mother or the neareſt relation per-

performs the office. Women who desire to have children eat spiders for this purpose, and others, who have an aversion to child bearing, procure abortions by different medicines, at the hazard of their lives. Other women are such unnatural wretches, as to destroy their children as soon as they are born, or throw them alive to the dogs. Their superstition also is sometimes the occasion of great barbarity; for when a woman bears twins, one of them, at least, must be destroyed, and so must a child born in very stormy weather, though this last can be averted by some conjurations.

The Kamtschadales, instead of burning or burying their dead, bind a strap round the neck of the corpse, draw it out of the hut, and deliver it for food to their dogs, from a persuasion, that those who are eaten by dogs, will drive with fine dogs in the other world; however, when any one has died in the hut, they frequently remove to some other place, without dragging the corpse along with them. They throw away the cloaths of the deceased, from an opinion, that whoever wears the cloaths of one that is dead, will certainly come to an untimely end. After touching a dead body, they use the following purification. Going to the wood, they cut some rods, of which they make a ring, and creeping through it twice, they carry it back to the wood, and throw it towards the west. Those who dragged out the body are obliged to catch

catch two birds, of one ſort or other, one of which they burn, and eat the other with the whole family. The purification is performed on the ſame day: for they muſt not enter any other hut, nor will any perſon enter theirs, before they are purified. In commemoration of the dead, the whole family dine upon a fiſh, the fins of which they burn in the fire.

North of the Kamtſchadales is the nation of the Koreki, who are divided into the rein deer, or wandering Koreki, and the fixed Koreki, who are ſettled in one place, and live in huts in the earth, like the Kamtſchadales. The wandering Koreki are extremely jealous of their wives, whom they ſometimes kill, only upon ſuſpicion: on the contrary, the fixed Koreki, as well as the Tchukotſkoi, another nation north of the Koreki, when they entertain a friend, put him to bed with their wives and daughters, and a refuſal of this civility they conſider as the greateſt affront, and are even capable of murdering a man for ſuch a contempt. The wives therefore of the fixed Koreki endeavour to adorn themſelves as much as poſſible, painting their faces, wearing fine cloaths, and uſing various means to ſet off their perſons; and in their huts they ſit quite naked, even in the company of ſtrangers; whereas the wives of the wandering Koreki go as dirty and ragged as poſſible, to avoid the jealouſy of their huſbands, who ſay, that a wife has no occaſion to adorn herſelf, except to gain the

the affections of a ſtranger, as her huſband loves her without ſuch ornaments.

The wandering Koreki ſojourn with their herds of rein deer, in ſuch places as abound with moſs, or other proviſion for the deer; their manner of living, eſpecially in the winter time, is ſtill more diſagreeable than that of the Kamtſchadales: for being frequently obliged to change their habitations, the huts which they come to are all frozen; and when they begin to thaw them by the fires, which are uſually made of green ſhrubs or graſs, there ariſes a ſmoke ſo pernicious to the eyes, that it is enough to blind a perſon entirely in one day. They feed upon the fleſh of the rein deer, with which they very much abound, ſome of them having from ten to twenty thouſand deer, nay one of their chiefs was ſaid to have a hundred thouſand; but yet they are ſo penurious, that they will ſcarcely kill any for their own uſe, ſatisfying themſelves with ſuch as die naturally, or are killed by the wolves: they never milk the rein deer, nor do they know any uſe of milk.

They ride only in the winter time on ſledges drawn by rein deer, but never mount upon their backs in the ſummer. The wandering Koreki ſeem to have no notion of religion, and have ſcarce any idea of a God; they ſeem however to apprehend evil ſpirits, which, according to their opinion, inhabit the rivers and woods; the ſettled Koreki have the ſame

notion of a God with the Kamtſchadales; they have no fixt time of worſhip, or offering ſacrifices, but they ſometimes kill a rein deer, or a dog, which they fix upon a ſtake, turning its face towards the eaſt, leaving only the head and tongue upon the ſtake, and uſing this formula. 'We offer this to you, that you may ſend us ſomething that is good.' They generally offer ſacrifice when they are going to paſs any river or waſte, which they think the devils inhabit; then they kill one of their deer, and eating the fleſh, they faſten the bones on a pole, which they fix oppoſite to the habitation of the ſpirits. When they are afraid of any infectious diſtemper, they kill a dog, and winding up the guts upon two poles, paſs between them.

During their ſacrifices, their ſorcerers keep beating a little drum. Some of the ſorcerers are reckoned phyſicians, and are thought, by beating upon the drum, to drive away diſtempers. When the ſorcerers pretend to cure any diſtemper by conjurations, ſometimes they order a dog to be killed; at other times, to plant little rods round their huts. When they kill a dog, one perſon holds it by the head, another by the tail, and a third ſtabs it: when it is dead, they fix it upon a ſtake, turning its head to the neareſt burning mountain.

Among theſe barbarous nations, theft is reputable, provided they do not ſteal in their own tribe; or if done with ſuch art as to prevent

vent diſcovery: on the other hand, it is puniſhed very ſeverely, if diſcovered; not for the theft, but for want of addreſs in the art of ſtealing: a Tchukotſkoi girl cannot be married, before ſhe has ſhewn her dexterity in this way. Murder is not looked upon as a great crime, unleſs it be in their own tribe, and then the relations of the murdered perſon generally revenge it, but no body elſe takes any notice of it.

They burn their dead in the following manner. Having firſt dreſſed them in their fineſt apparel, they draw them with thoſe deer which they think were their favourites, to the place where they are to be burnt. Here is erected a great pile of wood, into which are thrown the arms of the deceaſed, and ſome houſhold furniture, ſuch as their ſpear, quiver and arrows, knives, hatchets, kettles, &c. Then they ſet fire to the pile, and while it is burning, kill the deer that drew the corpſe, upon which they feaſt, and throw the fragments into the fire.

They celebrate the memory of the dead only once, and that a year after their death. All the relations then aſſemble, and taking two young rein deer, that have never been in the draught, and a great many deer's horns, which they have been collecting through the whole year, for that purpoſe, they go up to the place where the body was burnt, if near, or, if at a diſtance, to ſome other high place,

where they kill the deer, and the ſorcerer, driving the horns into the earth, pretends that he ſends a herd of deer to the dead. After this, they return home, and in order to purify themſelves, they paſs between two rods which are fixt in the ground; the ſorcerer at the ſame time beating them with another rod, conjures the dead not to take them away.

The nation of the Kuriles, who inhabit the Kurilſki iſlands, ſouth-eaſt of Kamtſchatka, have a cuſtom of blackening their lips, and ſtaining their arms with different figures, as far as the elbows, and both men and women wear ſilver rings in their ears. In their huts, they have idols made of chips, or ſhavings, curiouſly curled: to theſe idols they ſacrifice the firſt animal they catch, and eating the fleſh themſelves, hang up the ſkin before the image. If they make any dangerous voyage, they take the idol along with them, which in caſe of imminent danger, they throw into the ſea, expecting by this method, to pacify the ſtorm. They are more civilized than the neighbouring people. They have two or three wives, with whom they never publicly bed, but ſteal to them privately in the night time. They have an extraordinary way of puniſhing adultery; the huſband of the adultreſs challenges the adulterer to a combat, which is fought in the following manner: both the combatants are ſtripped quite naked, and the challenger gives the challenged a club, about three feet long, and near as thick

as

as a man's arm; then the challenger is obliged to take three ſtrokes upon his back from the challenged, who then returns him the club, and is treated in the ſame manner; theſe bouts they repeat three times, and the reſult generally is the death of both the combatants: but it is reckoned as diſhonourable to refuſe this combat, as it is to refuſe a challenge in Europe. If a perſon charged with adultery prefers his ſafety to his honour, he is obliged to give the huſband whatever ſatisfaction he requires, by way of damages, in ſkins, cloaths, proviſions, or other things.

The Jakutſkoi do not worſhip idols carved in wood, like many of their neighbouring nations, but offer ſacrifices to an inviſible God in heaven; yet they have a type or image of that deity, ſtuffed out with a monſtrous head, eyes of coral, and a body like a bag: this image they hang upon a tree, and round it the furs of ſables, and other animals; their prieſts uſe drums like the prieſts of the Koreki, and worſhip the inviſible god under three different denominations. Before the Ruſſians arrived among them, they had a cuſtom of burning alive, or killing, the oldeſt ſervants or favourites of a prince at his funeral. They have many ſuperſtitious cuſtoms, in common with other nations, which they celebrate about certain trees, that they regard as ſacred. When they meet with a fine tree, they hang all manner of nick nacks about it, as iron, braſs, copper, &c. and their prieſts, when they per-

form their ſuperſtitious rites, put on a garment trimmed with bits of iron, rattles, and bells.

As ſoon as the fields begin to look green, every tribe aſſemble in ſome pleaſant ſpot of ground, at a fine tree, where they ſacrifice horſes and oxen, the heads of which, with the ſkin on, they ſtick up round the trees; they then take a jugg full of a certain liquor, and ſitting down in a circle, lift up the jugg with both hands, and drink round one to another; they afterwards, dipping a bruſh in the ſame liquor, ſprinkle ſome of it in the air, and ſome into the fire, which they light up on that occaſion. At this feſtival, they generally get violently drunk, and gorge themſelves to that degree with meat, that it is ſaid, four perſons will commonly devour a whole horſe; and many of them gorge to that exceſs, that they die on the ſpot: theſe people are very naſty; they eat bread when they can get it, but it is no uſual part of their diet, becauſe they do not plough, ſow, or plant. Their harveſt is in February and March, when the ſap riſes in the trees: then they go into the woods, cut down the young pine trees, take off the inner bark, which they carry home and dry for their winter's proviſions: they then beat it to a fine powder, boil it in milk, and eat it together with dried fiſh, alſo beat to powder. They ſhift their habitations in the ſame manner as ſeveral other Tartar nations do. Their winter houſes

houſes or huts, are of a ſquare form, and made of thin planks and beams, the roof is covered with earth, and a hole is left in the middle for the ſmoke to go out at: their ſummer dwellings are round, in the ſhape of a ſugar loaf; the outſide ſhell of theſe huts is made of the bark of birch trees, curiouſly joined together, and embroidered with horſe hair dyed of many colours.

They diſpoſe of their dead divers ways; the principal perſons among them pitch upon a fine tree, near which they order themſelves to be buried: they put ſome of the beſt moveables of the deceaſed with him in the grave. Some only put the corpſe upon a board, which they fix upon four poſts in a wood, cover the dead body with an ox or horſe's hide, and ſo leave it: but the greateſt part of the dead are left in their huts, whence the relations take the moſt valuable things, make the huts up cloſe, and then leave them: thoſe who die in the city of Jakutſkoi are left in the ſtreets, where they are frequently devoured by dogs. Each tribe of theſe people look upon ſome particular creature as ſacred, and ſuch is not eaten by that tribe, though the other tribes eat it.

The Jugajiri, a nation near the mouth of the Lena, upon the frozen ſea, hang up their dead on trees, and when they go a hunting, carry along with them the ſkeletons, or bones of their parents and relations. This agrees with

with what is related of the Samoieda Tartars, who never bury the bones of their parents: and who, it is ſaid, drown or otherwiſe diſpatch them when they turn old. Some writers will have it, that they eat their fleſh, whence they are called *Samoiedes*, which in the Ruſſian language, ſignifies *Men eaters*.

THE BEAUTIES OF NATURE AND ART DISPLAYED, IN A TOUR through the WORLD.

CHAP. VI.

OF The INDIAN ISLANDS.

CHAP. VI.

Of the INDIAN ISLANDS.

SECT. I.

A general Account of the Indian Iſlands.

THE Indian and oriental iſlands, beſides thoſe of Japan already deſcribed, are 1. The Ladrone iſlands. 2. The Philippine iſlands. 3. The Moluccas. 4. The Banda iſlands. 5. The iſlands of Celebes, Gilolo, Ceram, &c. which ſurround the Moluccas and Banda iſlands. 6. The Sunda iſlands of Borneo, Sumatra, and Java; and thoſe that lie to the eaſtward of Java, Bally, Lomboe, Timor, &c. 7. The Nicobar. 8. The Andaman iſlands. 9. The Maldiva iſlands, and 10. The iſland of Ceylon.

1. The Ladrone iſlands are ſituated in the Pacific Ocean, in about 140 degrees of eaſt longitude, and between 12 and 24 degrees of

north latitude: the chief of theſe iſlands are Guam, with its chief city of the ſame name, and the iſlands of Tinian, Maban, Pagan, and Gregan.

2. The Philippine iſlands are ſituated in the Chineſe ſea, between 114 and 131 degrees of eaſt longitude, and between 5 and 10 degrees of north latitude; and conſiſt of the iſland of Luconia, or Manila, the chief city of which is Manila; the iſlands of Tandoga, or Samar, Maſbate, Mindora, Luban, Paragoa, Panay, Leyte, Bohol, Sibu, Sogbu, Negros, St. John, Xollo, and Mindanao with its chief city of the ſame name.

3. The Moluccas, or Clove Iſlands, are ſituated ſouth of the Philippine iſlands, in 125 degrees of eaſt longitude, and between 1 degree ſouth, and 2 degrees north latitude, and conſiſt of the iſland of Bachiam, the iſland of Machiam, the chief city of which is Fort Orange, the iſland of Motyr, the iſland of Ternate, the chief city of which is Victoria Fort, and the iſland of Tydor.

4. The Banda or Nutmeg Iſlands are ſituated ſouth of the Molucca iſlands, between 127 and 128 degrees of eaſt longitude, and between 4 and 5 degrees of ſouth latitude, and conſiſt of the iſland of Lantor, with its chief city of the ſame name; the iſlands of Poleron, and Roſinging, the iſland of Pooloway, the chief city of which is Revenge, and the

the iſland of Gonapi, the chief city of which is Naſſau Fort.

5. The chief of thoſe iſlands which ſurround the Moluccas and Banda iſlands, in the Indian ocean, under or near the equator, are Amboyna, Celebes, or Macaſſar, the chief city of which is Macaſſar, Gilolo, with its chief city of the ſame name, Ceram, the chief city of which is Ambay, and the iſlands of Ceram, Flores, Timor, Miſacomby, Bouton, Bouro, &c.

6. The Sunda iſlands, ſituated in the Indian ocean, between 93 and 120 degrees of eaſt longitude, and between 8 degrees north, and 8 degrees ſouth latitude, conſiſt of the iſland of Borneo, with its chief city of the ſame name; the iſland of Sumatra, the chief cities of which are Achen and Bencoolen; the iſland of Java, the chief cities of which are Batavia and Bantam, the iſland of Bally, with its chief city of the ſame name; the iſland of Lamboe, and the iſland of Banca, with its chief city of the ſame name.

7. The Nicobar iſlands, ſituated in 93 degrees eaſt longitude, and between 6 and 10 degrees of north latitude, conſiſt of the iſland of Nicobar proper, with its chief city of the ſame name, the iſland of Canicubar, with its chief city of the ſame name, and ſeveral other inconſiderable iſlands.

8. The Andaman iſlands, ſituated in the bay of Bengal, in 93 degrees of eaſt longitude, and between 10 and 15 degrees of north latitude, conſiſt of Andaman proper, Low iſland, &c.

9. The Maldiva iſlands, ſituated ſouth of the Hither India, between the equator and 7 degrees of north latitude, conſiſt of the iſlands of Caridow, Canduſal, &c.

10. The iſland of Ceylon, or the Cinnamon Iſland, is ſituated ſouth-eaſt of the Hither India, between 78 and 82 degrees of eaſt longitude, and between 6 and 10 degrees of north latitude: its chief city is Candy.

SECT. II.

A particular Account of the moſt curious natural Productions of the Indian Iſlands, *in the Animal, Vegetable, and Foſſil Kingdoms; of remarkable Mountains or Volcano's; of medicinal and other ſingular Springs; and of other natural Objects of Curioſity.*

ANIMALS.

IN the iſland of Ceylon, there are ſeveral ſorts of elephants, ſome a great deal higher before than behind, and ſome which never have the two long tuſks. Others are of a more ſavage nature, known by the fierceneſs of their aſpect; and, not being tameable, are of no ſervice, except for the puniſhment of malefactors, as they kill all that come within their reach. This ſort the natives endeavour to deſtroy, either by ſhooting them, or cutting off their trunks. Beſides elephants, tigers, wild ſwine, and other quadrupeds common to other countries; there is in the iſland of Ceylon a ſort of bear, called the Ant-bear, from his living principally upon a certain kind of ant, of which there are great numbers in the iſland. In order to deceive them, the bear lies down near the little neſts they build, as if he was dead, lolling out his tongue, as far as he can,

upon which multitudes of ants preſently fix themſelves, and the bear draws in his tongue and ſwallows them; and then putting out his tongue again he ſoon catches more, continuing ſo to do till he has ſatisfied his hunger. The neſts or habitations of theſe ants are very curiouſly formed, according to the accounts of travellers, being built in little hills, and conſiſting of vaults and arches of the fineſt clay, and ſo ſtrong as not to be eaſily demoliſhed *.

There

* Having mentioned the ant in this place, it leads us to make ſome obſervations on that little inſect, which the ſcripture calls 'exceeding wiſe,' Prov. xxx. 24. and to which Solomon ſends the ſluggard to learn wiſdom, foreſight, care, and diligence: 'Go to the ant, thou ſluggard, conſider 'her ways, and be wiſe; which having no guide, 'overſeer, or ruler, provideth her meat in the 'ſummer, and gathereth her food in the harveſt,' Prov. vi. 6, 7, 8. To view theſe buſy animals, as an ingenious author obſerves, is really an inſtructive ſight; for we may conſider them as a little people united, like the bees, in a republic governed by its own laws and politics. They have uſually a kind of oblong city, divided into various ſtreets, which terminate at different magazines. Some ſpecies of ants ſtrengthen the earth, and prevent its falling in, by incruſting it with a ſurface of glutinous matter; but thoſe we commonly meet with, make their habitations by amaſſing ſeveral ſplinters of wood, which they uſe as rafters to ſuſtain the roof, and acroſs theſe they lay another rank of ſplinters, covering them with

There are various kinds of ſerpents in Ceylon, ſome very large and dangerous; but there are two ſorts that are not thought venomous,

with dry ruſhes, graſs, and little ſtraws, which they raiſe with a double ſlope, to turn off the water from their magazines, whereof ſome are appropriated to receive their proviſions, and in others they depoſit their eggs, and the worms that proceed from them.

As to their proviſions, they are indefatigable in bringing them home; and it is very pretty to ſee one of them loaded with a kernel of ſome fruit, another bending under the weight of a dead gnat, or ſeveral of them at work on the carcaſs of a larger fly, or other inſect. What cannot be removed they eat on the ſpot, and carry to their magazines what is capable of being preſerved. They ſometimes carry, and ſometimes puſh before them, grains of wheat or barley, much larger than themſelves; and we are told, that they gnaw off the point of the grain, to prevent its ſhooting up by the moiſture of the cells in which it is depoſited. Some pretend to have ſeen their granaries, and we ſhall not abſolutely deny the fact; but it is probable their aurelia's, commonly called ants eggs, have been miſtaken for grains of corn.

After the ants have paſſed the ſummer in a conſtant employment and fatigue, they ſhut themſelves up in winter, and enjoy the fruits of their labours; but there is reaſon to believe they eat little in that ſeaſon, and are either benumbed or buried in ſleep, like many other inſects. Their induſtry therefore in ſtoring up proviſions does not ſeem ſo much intended to guard againſt the

nomous, which the Ceyloneſe will not deſtroy. The firſt is of a bluiſh colour, about two

winter, as to provide a neceſſary ſuſtenance for their offspring; whom they nouriſh, as ſoon as they quit the egg, with wonderful aſſiduity, the care of their little progeny being eſteemed a matter of public concern.

Dr. King, who was very curious in examining the generation of ants, imagines their true eggs to be that fine white ſubſtance, like grains of ſugar or ſalt, which is obſervable upon opening an ant-hill: for viewing a bit of it with a good microſcope, and opening it with the point of a needle, he diſcerned many white appearances in diſtinct membranes, reſembling little eggs, and as clear as a fiſh's bladder; and what confirms his conjecture is, that he found the very ſame ſubſtance in the bodies of the ants themſelves. This ſubſtance, when ſcattered, the ants diligently gather into a heap, and lie upon it in multitudes, perhaps, as Dr. Derham ſuppoſes, by way of incubation. Be this as it will, when the young ants leave the egg, they are little worms, no longer than common grains of ſand, without any ſenſible motion; but after they have received their nouriſhment for ſome time, which is diſtributed to them in equal proportions, they ſpin a thread, and wrap themſelves up in a whitiſh web, in which ſtate they are vulgarly taken for eggs, but are in reality aurelia's or nymphs, that are to be tranſformed into a new progeny. And now it is very diverting, as well as ſurprizing, to ſee with what affection and care the parent-ants carry about theſe aurelia's; how they expoſe themſelves to the greateſt dangers rather than forſake them; how they

two yards and a half long, and an inch in diameter. He frequently comes into their houſes in queſt of rats, creeping into their neſts and deſtroying them, they being his principal food. The other ſort is about a yard long, half an inch in diameter, and of a green colour, like the leaves of the trees, up which he climbs, and there lies motionleſs, waiting for birds to perch near him, on which he ſuddenly ſeizes.

they remove them from place to place in their little hills, for the benefit of proper warmth or moiſture, ſometimes bringing them up to the ſurface of the earth, or carrying them down into the ground, according as the ſeaſon is warm or cold, dry or rainy: when the weather is ſerene, they bring them up towards the top of the hill in the morning, commonly on the ſouth ſide; but on the approach of night, or cold, or the appearance of ſhowers, they deſcend with their beloved charge to ſuch a depth, that, as Dr. King obſerved, you may dig a foot or more before you can find them. To this extraordinary tenderneſs and care of their young, we might add other particulars of the conduct of theſe little animals, ſuch as their cuſtom of removing the dead from their habitations, and their readineſs to aſſiſt each other in carrying burdens, or invading their enemies. We might alſo enlarge on their nice formation, and on the wiſdom of Providence in giving wings, as is reported, to the males at a certain age, to facilitate their acquiſition of food, which are denied to the females, that they may be more at home, and attentive to domeſtic cares.

But

But of all the ſerpents which are found in the Indian iſlands, or in any other part of the world, perhaps none is more remarkable than the cucullated or hooded ſerpent, ſo called from a kind of hood or cap that covers its head. This ſerpent, according to the relation of M. de la Cote, who found one as he was hunting in a little iſland near Batavia, is as thick as a man's arm, and about eight feet long, being the ſame ſpecies that Tavernier mentions in his Travels.

To come to the feathered tribe; the birds of Paradiſe, which are chiefly found in the Molucca iſlands, have been much talked of by naturaliſts, who have deſcribed ſeveral ſorts of them, differing in ſize, ſhape, and colour. They have obtained the name we give them, not only from their beauty, but from a vulgar opinion of their dropping down from heaven, it not being known where they breed, whence they come, or whither they depart. The bird is but ſmall, has a head like a ſwallow, with a bill ſomewhat longer, and the colours of its feathers are extremely beautiful. Strange ſtories have been told concerning theſe birds, ſuch as their wanting feet and legs; that they lived upon celeſtial dew; that they kept continually upon the wing, and took no reſt but on high in the air; that they were never taken alive, but that they fell down dead upon the ground, &c. all which things are now known to be falſe and fabulous, both by the accounts of travellers, and by

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The Hooded Serpent.

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by the birds themſelves having been brought to Europe.

In Ceylon they have a black bird called Carlos, as big as a ſwan, which ſeldom lights on the ground, but perches on high trees. It has ſhort legs, a large head, and a long bill, but crooked like that of a hawk. It has white ſpots on each ſide of the head, a white creſt on the top of it, and quacks like a duck. There is likewiſe a black water fowl, as big as a duck, which lives on fiſh, and dives a great while under water.

In the iſland of Java, they have a great variety of animals, ſome of which have been already ſpoken of, and others will be deſcribed hereafter. Captain Hamilton ſays, that their peacocks have all red bodies, but black wings and tails, and are ſo large, that when they take wing they may be heard half a mile. He particularly takes notice of two remarkable creatures called Jackoa and Oran-outang, the former whereof is like a lizard, and piſſes at any thing that provokes it; and its urine is of ſuch a nature, that if it fall upon one's fleſh, it bliſters the ſkin; and without immediate cauſtics, or cutting out the part, it becomes abſolutely incurable. The Oran-outang, which is ſuppoſed to be peculiar to this iſland, approaches nearly to human beings, in its walking, ſhape, and ſagacity. The captain ſays, he ſaw one kindle a fire, and blow it with his mouth, and another broil a fiſh to eat with

with his boiled rice; that they are of a melancholy diſpoſition, have a grave dejected countenance, and, even when young, are not inclined to play.

The iſland of Borneo, as well as Java, has a kind of little wild horſes, beſides various quadrupeds common to it with other parts of the Indies. There are likewiſe parrots and parroquets of all ſorts; and in the evening the ſky is almoſt darkened with a large kind of bats, which ſome travellers call flying cats, reſembling a fox in colour, ſhape, and ſmell. The wings of ſome of theſe bats, when extended, meaſure five or ſix feet from the tip of the one to that of the other.

In Sumatra they have plenty of wild hogs, which the Europeans often go out to ſhoot in the night-time; and what they call hog-deer, a creature about the ſize of a rabbet, that burrows in the woods, are alſo common in their markets. They have a head like a hog, are ſhanked and hoofed like deer, and their hocks are often tipped with ſilver for tobacco ſtoppers. In this animal is found a ſort of bitter Bezoar, reckoned extremely valuable. There is likewiſe the fineſt breed of cocks in this iſland of any in thoſe parts of the world, and the cockers, it is ſaid, will often venture their whole eſtates on the iſſue of a battle.

Mr. Lockyer relates, that ſharks are often ſold in the markets of Achen, the capital of the

the kingdom of Sumatra, and he thinks the largeſt in the ſea are found on the weſtern coaſt of that iſland. The ſhark is generally looked upon as the boldeſt and moſt ravenous of all fiſhes *. The number of its teeth is uncertain, and varies, as ſome ſay, according to the age of the fiſh; but it has uſually five rows in each jaw, ſometimes ſix, which are triangular, and very ſharp. It has a long gullet, and in the belly of it are frequently found the bodies of men half eaten, ſometimes entire, for it will follow a ſhip a long way in hopes of prey, and when taken it is ſaid to beat againſt the deck with ſuch violence, as to ſhake the whole ſhip. It is covered with a rough but cloſe-grained ſkin, with which the trunk and caſe makers cover ſeveral ſorts of boxes, ſheaths, &c. and the ſame uſe is made of the ſkins of ſome other fiſhes. The teeth of this animal petrified are the Gloſſopetræ of the ſhops, which are eſteemed good againſt poiſons, and women hang them about the necks of children, as imagining they prevent frights, and aſſiſt dentition.

* It is an obſervation of Sir Hans Sloane, that the ſhark hath this peculiar to it, with ſome others of its own tribe, that the mouth is in its under part, ſo that it muſt turn its belly upwards to ſeize its prey: and were it not for the time that it is in turning, in which the purſued fiſhes eſcape, there would be nothing that could avoid it: for it is very quick in ſwimming, and hath a vaſt ſtrength, with the largeſt ſwallow of any fiſh, and is very devouring.

In

In the Indian ſeas are found oyſters of a furprizing bigneſs, a ſufficient inſtance whereof are thoſe mentioned by Mr. Strachan, who tells us, that about three leagues from Batavia he ſaw ſome of thoſe ſhell-fiſh twelve inches in diameter, one of which ſhells grew till it was three feet broad, and a foot thick. After the fiſh was putrified, he always obſerved a ſlime upon theſe ſhells, which lay only three or four feet under water.

VEGETABLES.

IT is theſe iſlands, and ſome few of them only, that furniſh us with nutmegs, cinnamon, cloves, &c. which ſpices are juſtly eſteemed for their ſalutary heat and aromatic odour, and ſeem in the firſt place to deſerve our attention. A vulgar error long prevailed, and is perhaps ſtill entertained by ſome people, that nutmegs, mace, cloves, and cinnamon, were all produced by one and the ſame tree; but this is contradicted by all our lateſt and beſt accounts, the opinion being only true with reſpect to mace and nutmegs. The Nutmeg-Tree grows ſpontaneouſly in the Banda iſlands, and eſpecially in that which particularly bears the name of Banda, formerly poſſeſſed by the Engliſh, but now by the Dutch, who have monopolized the ſpice trade to themſelves, and that by methods of great cruelty, witneſs their maſſacre of the Engliſh at Amboyna *. And ſuch prodigious quantities of Nutmegs are produced in theſe iſlands, that we are credibly informed the Dutch

* This barbarous affair happened in the year 1623, when the chief of the Engliſh factory at Amboyna were condemned and executed for a pretended conſpiracy againſt the Dutch, upon the evidence of thoſe whoſe confeſſions had been extorted from them by various tortures. After this they ſeized the Engliſh goods at Amboyna and other iſlands to a great value, and have ever ſince ſupplied all Europe with ſpices.

ſometimes burn vaſt heaps of them upon the ſpot, rather than bring them to Europe, and over-ſtock the markets.

But to proceed with our account of the tree that bears theſe aromatic nuts, it is as large as our common pear-trees, and its leaves like thoſe of the peach-tree, but ſomewhat rounder. The fruit is about the ſize of a ſmall peach, conſiſting firſt of a ſoft juicy hull like that of a walnut, and immediately underneath it lies a thin reddiſh coat called Mace, and by ſome, though improperly, the Flower of Nutmeg. This incloſes a hard woody ſhell, and opens in proportion with the outward hull. The ſhell is blackiſh; under which is a green film of no uſe, and in this is found the nutmeg. We are told that this fruit is gathered three times a year, viz. in April, Auguſt, and December; but the beſt are thoſe gathered in April. They muſt be choſen heavy, of a whitiſh brown colour, well marbled on the outſide, reddiſh within, having an agreeable ſmell, and a fat unctuous moiſture. It is to be obſerved farther, that there are two kinds of Nutmegs, male and female; the latter of which is chiefly uſed amongſt us, the male being a wild nut of a longiſh form, without either ſmell or taſte.

The Nutmeg-Tree is propagated after a particular manner, according to Tavernier's account, who relates, that when the fruit is ripe, certain birds devour it whole, but are forced to throw it up again before it be digeſted, and that

The Nutmeg Tree.

that the nutmeg, thus beſmeared with a viſcous matter, takes root where it falls, and produces a tree, which would never thrive was it planted *. Thevenot ſays, that the birds having picked off the green huſk, ſwallow the nuts, which after ſome time they void in the ordinary way undigeſted; adding, that they are ſhaped like a cuckow, and that the Dutch prohibit the killing of them under pain of death. Mr. Ray tells us, that ſeveral ſorts of birds devour the Nutmegs, but chiefly a ſmall white kind of pigeons; and that being voided whole, they take root the ſooner, as having been previouſly macerated in the ſtomach of the animal. He adds however, that the fruit of the

* Pliny, Theophraſtus, and other antient naturaliſts generally agree, that the miſletoe, which grows upon the oak, white thorn, and other trees, is propagated by birds ſwallowing the berries, and voiding them again on the branches where they happen to perch, the ſeeds being fertilized by paſſing through their bodies. Mr. Bradley endeavours to refute the popular opinion of the antients, that the ſeeds of the miſletoe would not vegetate without this preparation; and ſuppoſes that their unſucceſsful endeavours to propagate it in the earth have led them into the error. He aſſerts that it may be propagated by ſeed on any tree whatever, and that very eaſily; for if about Chriſtmas, when the berries are full ripe, we apply them on the ſmooth bark of a tree, their viſcidity will make them ſtick; and, provided they are not devoured by birds, we may expect a new plant the following year without any farther trouble.

trees produced in this manner is much worſe than that of others, and that the natives take no notice of it except for the mace, which they uſe to adulterate that which is better.

As to the medicinal qualities of Nutmegs, they are heating, drying, ſomewhat aſtringent, and ſtrengthen the head and ſtomach. They diſcuſs flatulencies, help digeſtion, ſweeten the breath, are excellent in faintings and palpitations of the heart, reſtrain diarrhœas, and ſtop vomitings. We have ſome Nutmegs brought to us preſerved, being comfited green where they grow; and theſe are alſo reckoned ſtomachic, and very ſerviceable in flatulent diſorders, but if eaten to exceſs, are ſaid to have a narcotic quality, and to produce a ſort of intoxication. The ſame virtues with thoſe of Nutmegs are aſcribed to Mace, but as its parts are more minute, it is thought to operate more effectually, and to be poſſeſſed of a more penetrating quality. The genuine Oil of Mace by expreſſion, made in the iſlands while the mace is recent, is brought to us in bottles, but is a very rare commodity; that commonly ſold in the ſhops being a factitious kind, by no means equal to the true ſort in efficacy.

The Clove-Tree was formerly very common in moſt of the Molucca iſlands, and all nations furniſhed themſelves with Cloves at liberty; but the Dutch, to render themſelves ſole maſters of that merchandiſe, have found means to deſtroy all the Clove-Trees, except thoſe of Ternate,

The Clove Tree.

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nate, and a few other ſmall iſlands in their own poſſeſſion. The fruit of this tree falling on the ground, takes root, and thus it is multiplied without any culture. The tree reſembles a laurel, but its leaves are narrower; and it is ſaid that no graſs will grow under its branches, its own root attracting all the humidity of the ſoil. From the age of eight years to a hundred it bears fruit, which is gathered once a year; though ſome ſay they crop the buds one year, to make them thrive the better next; and ſo gather the fruit only every ſecond year. When the Clove firſt begins to appear, is is of a whitiſh green colour, but grows brown as it ripens; nor is there any preparation neceſſary in order to render it ſuch as it comes to us, but to dry it in the ſun, notwithſtanding what ſome authors talk of ſteeping it in ſea-water to preſerve it from worms. Towards the head it ſeparates into four parts, whoſe apices meeting at the top, form a kind of crown, ſomewhat in the antique manner.

Cloves are very heating and drying, ſtrengthen a weak ſtomach, expel wind, prevent fainting, ſtop vomiting, and are good in malignant diſtempers. There is alſo an oil drawn from Cloves by diſtillation, which is reckoned a ſovereign remedy for the tooth-ach, and is likewiſe much uſed by perfumers.

The fine ſpice we call Cinnamon, is the bark of a tree growing plentifully in Ceylon, and perhaps peculiar to that iſland; at leaſt the

beſt ſort is brought from thence, and the commerce thereof monopolized, like the other ſpices, by the Dutch Eaſt India Company. By an account given us in the Philoſophical Tranſactions there appears to be ſeveral ſpecies of the Cinnamon-Tree, though ſome are not eaſily diſtinguiſhed from each other. That which yields the true and beſt Cinnamon, has leaves like thoſe of the lemon-tree, bears white fragrant bloſſoms, and a yelloviſh fruit not unlike an acorn, which has neither the ſmell nor taſte of the bark, but yields when boiled an oily juice, that hardens and becomes like tallow, and is not only uſed by the Ceyloneſe both internally and externally for ſeveral diſorders, but alſo for candles, which is ſaid are only allowed to be burnt in the King's palace. The young leaves of this tree are red, and, if rubbed between the hands, yield an odour more like that of Cloves than of Cinnamon. Theſe, by diſtillation, afford an oil of a bitteriſh taſte, reſembling oil of cloves, to which a little oil of cinnamon has been added. This is called *Oleum Malabathri*, and is celebrated as an inſtantaneous remedy for pains of the head and ſtomach, and ſome other diſorders.

The inhabitants of this iſland extract from the root of the Cinnamon-Tree by inciſion a liquor that ſmells like camphire, and gradually coagulates into white grains. This ſpecies of camphire is alſo obtained by diſtillation from the bark of the root dried, bruiſed, and immerſed

The Cinnamon Tree.

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merſed in water. The phyſicians of Ceylon uſe this diſtilled camphirated liquor with ſucceſs, exhibiting a ſpoonful of it at proper intervals, as a ſudorific, in continual and malignant fevers.

The Cinnamon-Tree muſt grow a certain number of years before the bark is fit to be taken off; but the beſt ſort ripens two or three years ſooner than the other trees, which is owing to the difference of the ſoil they grow in. Thoſe, for inſtance, where the ſoil is a fine white ſand, will be ready in five years time, whereas thoſe that ſtand in a wet ſlimy ſoil muſt have ſeven or eight years before they are ripe enough. Thoſe trees likewiſe that grow in the ſhade of others, whereby the ſun is kept from their roots, are later on that account; and for the ſame reaſon the bark of ſuch trees has not that agreeable taſte, which is obſerved in thoſe that grow in a white ſandy ſoil, where, with a little wet, they ſtand expoſed to the ſun. It is rather of a bitteriſh taſte, ſomewhat aſtringent, and ſmells like camphire; for by the heat of the ſun the camphire is rendered ſo thin and volatile, that it riſes up and mixes with the juices of the tree, where it undergoes a ſmall fermentation; and then riſing ſtill higher between the ſubſtance of the wood and the thin inner membrane of the bark, it is at laſt ſo effectually diffuſed through the branches and leaves, that the leaſt trace of it is not to be perceived. Mean time the thin glutinous membrane between

tween the bark and the ſubſtance of the wood attracts the pureſt, ſweeteſt, and moſt agreeable particles of the juice, leaving the thick and groſs ones, which are puſhed forwards, and ſerve to nouriſh the branches, leaves, and fruit.

To confirm the truth of what has been ſaid, our author obſerves, that if the bark be freſh taken off, the juice remaining in the tree has a bitteriſh taſte, not unlike that of cloves; but on the contrary, if you taſte the inner membrane of the bark, when juſt taken off, you will find it moſt exquiſitely ſweet and pleaſant, whereas the outer part of the bark differs very little in taſte from that of the common trees, which ſhews that all its ſweetneſs is owing to the inner membrane. When the bark is laid in the ſun in order to be dried and convolved, this oily ſweetneſs of the inner membrane diffuſes itſelf through the outer part of it, which has been ſtripped, while ſtill upon the tree, of its outermoſt greeniſh coat, and impregnates it ſo ſtrongly, as to make it a commodity which is coveted and admired by all the world for its aromatic taſte and fragrancy.

The Cinnamon may be taken from trees that have ſtood fourteen, fifteen, or ſixteen years after coming to maturity; but then they begin to loſe their agreeable ſweetneſs, and the bark has more of the taſte of camphire; beſides, it is then grown ſo thick, that when it is laid in the ſun, it does not ſhrink and wind itſelf

ſelf up, but remains flat. And now our author thinks it worth enquiring, conſidering the vaſt quantities of cinnamon that have been exported from the iſland of Ceylon, how ſuch numbers of trees fit to be barked ſtill remain; for it is abſolutely falſe, that when the bark has been ſtripped from the tree it grows again in four or five years, as ſome have reported. The truth of the matter is, that after the trees have been barked, new ſhoots ariſe from the roots, which in ſix or ſeven years are fit to be barked; and hence it appears how inſtrumental the old roots are to the plenty and growth of cinnamon. The tree is propagated by the fall of the fruit, and its being ſcattered by a ſort of wild pigeons, as we have obſerved of the nutmegs. Theſe birds, when they fetch food for their young ones, diſperſe the fruit over ſeveral parts of the iſland, which occaſions the riſe of many thouſands of young trees, which grow on the ſides of the roads, and form woods and groves in ſeveral places.

In the ſhops, that Cinnamon is generally accounted beſt that is of a yellowiſh red externally, and internally of a ſomewhat darker colour; and it is to be choſen ſmooth, eaſily broken, of a fragrant ſcent, and pungent taſte. That which is ſmall is preferable to the large kind, and the long pipes are more valuable than the ſhort ones. It is ſometimes adulterated with the bark of the caper-buſh, tamariſk, or the Caſſia Lignea; but this piece of fraud is eaſily detected. As to its virtues, though it be

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an excellent cordial, and highly beneficial in palpitations of the heart, yet by being too often uſed it has been found to bring on the ſame diſorder; in which caſe acids are the moſt effectual means of relief.

To the account we have given of the Cinnamon-Tree, we ſhall only add, that the Caſſia Lignea juſt mentioned, is a ſpecies of it produced in Malabar, Java, Sumatra, and the Philippine iſlands, and is brought into Europe in ſmall pipes like the Ceylonian cinnamon, but is of a darker and more ruſty colour, of a more compleat texture, and more languid ſmell. That ſort of this bark is reckoned beſt which is of a purpliſh colour, eaſily broken, fragrant, and of a ſweetiſh taſte, becauſe then it abounds with a volatile oleous ſalt, ſheathed in a mucilaginous ſubſtance, and is therefore proper when the intention is only moderately to heat, open, reſolve, and ſtrengthen.

Having mentioned that Camphire is obtained from the root of the Cinnamon-Tree, it is proper to obſerve, that it does not come from that tree only, but from another which grows very frequent in the iſland of Borneo. It is a ſubſtance of a very ſingular nature, diſtilling from the tree in manner of a gum, and thickening into little grains of different figures and ſizes. It is white, tranſparent, friable, of an acrid and ſomewhat bitteriſh taſte, of a penetrating ſmell, and to ſome people greatly offenſive. We are told that Camphire is red

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at firſt, but whitened either by the ſun or by fire; and indeed we have very little of the raw natural Camphire among us, the Dutch taking care it ſhall come refined by ſublimation, and prepared to our hands. Camphire flames in an open fire, and, when kindled, burns till it be totally conſumed; it likewiſe burns in water, and ſends forth a thick dark ſmoke, which produces a blackiſh ſoot. When put into a pure glaſs veſſel, with an alembic fitted to it, it melts by the force of fire, aſcends into the alembic, and there concretes again into the form of Camphire, without any alteration. When put upon hot bread, if it becomes moiſt, it is a ſign of its being good and genuine; but if it becomes dry, it is a proof of its being bad and ſpurious. As Camphire conſiſts of highly volatile parts, it is very penetrating, diſcutient, reſolvent, corroborating, and proper to reſiſt putrefaction. It is the moſt efficacious diaphoretic known, its great ſubtilty diffuſing it through the ſubſtance of the parts almoſt as ſoon as the warmth of the ſtomach has ſet it in motion. In the courts of the Eaſtern Princes it is burnt, together with wax, to illumine the night; and the Indians frequently mix it with acrid and aromatic ſubſtances, of which they form troches to be chewed in order to promote a diſcharge of the ſaliva. * It is of ſingular efficacy in inflammations whether internal or external, and has been found of uſe againſt fevers when worn as an amulet. Some put a grain or two of Camphire into a rotten tooth, and even uſe it as a gargariſm in the tooth-ach.

If

If Camphire be boiled in Aqua vitæ in a close place till the whole be evaporated, and then a lighted torch or candle be introduced, the air will immediately catch fire and appear all in a flame, without doing any damage either to the place or the spectators.

The tree that produces Sago, grows common enough in the Molucca islands, and is a very useful one to the natives on several accounts. When a tree is felled they cleave it in two in the middle, and dig out the pith, which is eatable even when it comes fresh out of the tree; but to make bread of it they pound it in a mortar till it is reduced to a powder somewhat like flour. This done, they sift it in a sieve made of the bark of the same tree, and pour water upon it to separate the fine part of the powder from the woody veins wherewith the pith abounds. The flour thus filtrated they call Sagou, which they make into paste, and bake it in earthen ovens; and this they do with very great expedition. The pith of this tree being well beaten in a mortar with water, forms a kind of emulsion, the sediment whereof dried is the Sago of the shops. It is much used amongst us, being a very kindly and nourishing food, never fermenting in the stomach, and very proper in hectic fevers. We are told that from the same tree they draw a liquor as pleasant as wine; that the leaves, when young, are covered with a kind of cotton, whereof they make their cloth; and that,

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when they grow older, they ſerve to thatch their houſes.

What we call Dragon's Blood is a reſinous ſubſtance iſſuing from a large tree which grows in Borneo, and ſome other iſlands in the Indian Ocean, as well as in Africa and America. This gum has its name from its reddiſh colour, and the tree itſelf is called *Draco Arbor*, or the *Dragon-Tree*, by botaniſts, ſome of whom talk of the figure of a dragon finely repreſented under the rind of the fruit of the tree; but this is a mere fiction *. The gum is eaſily melted by the fire, and flames when thrown into it, but is not diſſolved in any liquor without difficulty. It is a powerful drier and aſtringent, and is uſed to ſtop hæmorrhages, conglutinate wounds, and faſten looſe teeth. There is alſo a counterfeit ſort of dragon's blood made of the gum of the cherry or almond tree, diſſolved and boiled in a tincture of Braſil wood; but this is only applied externally in ſome diſeaſes of horſes.

There remain yet ſeveral other trees and plants, the produce of the Oriental iſlands,

* The antients had a notion, that the dragon fighting with the elephant ſucked all its blood through its ears and eyes; that the elephant falling down dead cruſhed the dragon; and that from their blood, thus mixed on the ground, aroſe what they called Dragon's blood, which they held in high eſteem. This is the account given by Solinus, Pliny, and others after them; but the reader need not be told that the whole is fabulous.

which are ſo remarkable as to deſerve our obſervation, particularly the Talipot in the iſland of Ceylon. This tree grows to a great height, having no branches on its trunk, but leaves on the top ſo large that one of them will ſhelter fifteen or twenty men. They fold up like a fan, and when dry, are ſtrong, light, and pliable, inſomuch that they are uſed for tents and umbrellas; and the natives write upon them inſtead of paper. The pith likewiſe, when beat in a mortar, makes tolerable bread, which the Ceyloneſe eat in a time of ſcarcity. It is ſaid they do not build their houſes near theſe trees, the bloſſoms having an offenſive ſmell.

In Ceylon there likewiſe grows a tree called Kettule, which yields a pleaſant wholſome liquor *, whereof the natives make a pretty good

* It is an admirable proviſion, as Dr. Derham obſerves, made by the wiſe creator for ſome countries ſubject to drought, that when the waters every where fail, there are vegetables which contain moiſture enough not only to ſupply their own vegetation and wants, but afford drink alſo both to man and other creatures in their great extremities. Thus the wild pine, according to Dampier, has leaves that will hold a pint and a half, or a quart of rain-water, which he ſays he has many times let out of the leaf with his knife, and catched in his hat, to his very great relief. And Navarette tells us of a tree called the Bejuco, which twines about other trees, with its point hanging downwards; and that travellers cut off the

good ſugar. They make ropes of its leaves; which, like thoſe of the Betel tree, are faſtened to a hard ſkin, full of very ſtrong fibres. The buds have the taſte of almonds, and the wood is ſo hard, that it ſerves for peſtles to pound rice. One particular told concerning it is very wonderful, viz. that while it is growing it ſheds its leaves, but ſheds none for many years after it is come to full maturity.

The Orula bears a fruit like an olive, which is uſed for purging, and makes ink by being bruiſed and ſteeped in water. If laid upon iron, it clears it from ruſt in a night's time. There is alſo a tree called Jackes, which bears a nut like a cheſnut, whoſe kernels are uſed inſtead of rice when it is ſcarce; and the tree yields a thick glutinous ſubſtance, which the boys uſe for bird-lime, and which taſtes like eggs when mixed with rice flour.

Rattans and large canes grow plentifully in Ceylon, running like vines along the ground, or up high trees, and bearing a fruit like bunches of grapes, covered with prickly ſhells, which fall off when ripe. Within theſe there is a ſcaly huſk incloſing a whitiſh kernel, of which the natives make a ſouriſh pottage, agreeable enough in that hot climate.

the point of it, from whence immediately iſſues a ſtream of water, as clear as cryſtal, enough for ſix or eight men. It is the common relief of herdſmen on the mountains when they are thirſty.

They have five different kinds of rice, diſtinguiſhed by their ſeaſons of maturity, all which, except one, require a watry ſoil. When the rice is gathered, the women carry it to a pit, where it is trod out by buffaloes; after which it is ſeparated from the huſks, by being pounded in a mortar; but the beſt ſort muſt be boiled in the huſks, or it breaks to pieces. Beſides rice they have ſeveral ſorts of corn, of which they make bread and oil; the moſt remarkable whereof is a grain called Tanna, ſaid to multiply a thouſand for one, ſo that it is ſown only in ſmall quantities.

FOSSILS, VOLCANO'S *and* SPRINGS.

MANY of the curious foſſils of theſe iſlands being of the ſame kinds with thoſe already deſcribed, in treating of the Aſiatic Continent, it is not neceſſary to ſay much here concerning them. The iſland of Borneo, for inſtance, produces vaſt quantities of diamonds, and other precious ſtones, of which mention has been made in treating of the Eaſt Indies. Several of theſe iſlands have likewiſe mines of gold, ſilver, copper and iron; and gold duſt is frequently found among the ſand of the rivers. In Ceylon there are very rich mines of gold and ſilver, but it does not appear that any are wrought: however they work ſeveral iron mines here, and the ſteel of this iſland is well tempered. Among the precious ſtones to be found in Ceylon, the rubies are remarkably fine; this gem being no where in ſuch plenty, except in the kingdom of Pegu in India. In Ceylon and Borneo is found the cat's eye already deſcribed; and moſt of the other gems are found in Ceylon, the mountains of which afford great quantities of white, red, and green cryſtal, together with ſalt-petre, ſulphur, and many other mineral ſubſtances.

The mountains of Formoſa are full of brimſtone, which makes the iſland ſubject to earthquakes. In the Philippine iſlands there are

ſeveral burning mountains, which have all the dreadful effects of Ætna and Veſuvius, being attended with violent earthquakes, rending the very rocks, and ſcattering ſhowers of aſhes round the country. From theſe ſubterraneous fires proceeds a great variety of hot baths, and ſome of their ſtreams are ſaid to be ſo hot, as to kill any animal that happens to fall into them; but the water, when cool, is well taſted, and reckoned a wholeſome drink. About half a mile from one of theſe hot rivers is another exceſſive cold one, and yet eſteemed equally wholeſome with the former for common drinking. There is a Volcano in the middle of the iſland of Sumatra, and Nieuhoff mentions ſeveral ſulphureous ſprings iſſuing from the rocks, whoſe water reſembles oil, is good againſt lameneſs, and has a ſtrong but not nauſeous ſmell. It is ſo much valued for its medicinal qualities, that it is ſaid, the king of Achen prohibits the exportation of it, on pain of death.

THE

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OF

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IN A

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PART III.

OF

AFRICA.

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Of AFRICA *in general.*

THE vaſt tract of land called Africa, and reckoned in order, the third part of the world, according to the diviſion of geographers, is joined to the continent we have been ſurveying by the iſthmus of Suez, a ſmall neck of land which cuts off the communication between the Red-ſea and the Mediterranean. This laſt ſea divides it from Europe; and being on all other parts ſurrounded by the Red-ſea and the main ocean, it may be looked upon as a huge peninſula, the middle regions whereof, the antients believed inacceſſible and uninhabitable, by reaſon of their intolerable heat, as lying moſtly under the Torrid Zone; on which account, as well as the ſavageneſs of its inhabitants, they have been little viſited by ſtrangers. And though we are much better acquainted with Africa than the antients were, yet our knowledge is chiefly confined to thoſe countries that lie along the coaſts, occaſioned by the difficulty of travelling over its wide ſandy deſarts, and amongſt people ſavage in their nature, forbidding in their manners and language, and ſhy of all intercourſe with foreign nations.

The

The equinoctial line cuts Africa almoſt in the middle, ſo that near two thirds of it are contained between the tropics, or lie under the Torrid Zone, upon which account the greateſt part of it is exceſſive hot, and more ſo from the many and vaſt ſandy deſarts, which reflect the vertical ſun's heat to ſuch a degree, as to make it quite unſupportable in ſome parts, and at ſome particular ſeaſons. Notwithſtanding this diſadvantageous ſituation, moſt parts of Africa are inhabited, though not near ſo well as Europe or Aſia; for which divers cauſes may be aſſigned, as, 1. the barrenneſs of thoſe ſandy tracts. 2. The ſcarcity of water in many parts of Africa. 3. Becauſe in ſome ſandy parts, the wind blows the ſand in ſuch prodigious quantities, as to overwhelm whole caravans. 4. Becauſe ſeveral parts of Africa are infeſted with a great variety of wild, ravenous, and dangerous animals. And 5. Becauſe many of its provinces are inhabited either by canibals, who prey upon and eat one another; or by ſavages, who make war one upon another, and ſell all they can lay hold of for ſlaves.

The coaſts of this country, being leſs ſubject to theſe inconveniencies, are found to be much better inhabited and cultivated, as well as more healthy and fruitful, particularly thoſe of Egypt and Barbary, where in ſome places the corn fields yield an hundred for one; and the ſtocks of the vines are as

as big as large trees. Africa produces great variety of excellent fruits, both for food and phyſic, and the cattle here are of a very large ſize, very fat, and the fleſh excellent.

CHAP.

CHAP. I.

Of EGYPT.

SECT. I.

A general Account of Egypt.

EGYPT is ſituated between 30 and 36 degrees of eaſt longitude, and between 20 and 32 degrees of north latitude. Its greateſt length, from north to ſouth, is 600 miles; and its greateſt breadth, from weſt to eaſt, is 150 miles. It is bounded by the Mediterranean Sea on the north; by the Red Sea on the eaſt; by Abyſſinia, or the upper Ethiopia, on the ſouth; and by the Deſart of Barca, and the unknown parts of Africa, on the weſt.

Egypt is diſtinguiſhed into two grand diviſions, the Lower Egypt, and the Upper Egypt. Lower Egypt contains the cities of Grand Cairo, Bulac, Alexandria, Roſetto, and Damietta; and Upper Egypt contains the city of Sayd, or Thebes, and the city of Coſſiar.

The

The only river of Egypt is the Nile, which iſſues out of a lake in Abyſſinia, and bending its courſe directly north, enters Egypt, and runs from ſouth to north the whole length of the kingdom, falling into the Mediterranean Sea by ſeveral channels, the principal of which are thoſe of Roſetta and Damietta, ſo denominated from the cities of the ſame name, which ſtand upon them: theſe two branches, with the ſea, form a triangle called the Delta; and at their influx into the ſea, are about an hundred miles aſunder. When the ſun is vertical in Ethiopia, and the annual rains begin there, about the end of May, the Nile begins to riſe, and continues riſing till October, when the banks are cut; and it is let into a grand canal, which runs through Cairo, and is from thence diſtributed by numberleſs ſmaller canals, to the fields and gardens of Egypt. Before the end of September, the Nile uſually riſes twenty-four feet; and from that time, it continues to fall till the end of May the year following, when the flood returns.

The greateſt part of Egypt, lying in a valley between high rocks and mountains on the eaſt, and the ſandy deſarts of Lybia and Barca on the weſt, is exceſſive hot in ſome months, particularly in April and May, when they are troubled alſo with hot winds: at this time the ſand is driven about in clouds, ſo that the people are almoſt blinded; and they are more ſubject to diſeaſes at that time, than in any other part of the year: but the Nile no ſooner

begins to riſe, and overflow its banks, than all diſtempers, even the plague, which viſits this country once in ſix or ſeven years, ceaſe. It ſeldom rains in the upper Egypt, or any part of the inland country. In the lower Egypt, they have ſometimes ſhowers, but not often; they depend entirely on the waters of the Nile to nouriſh the fruits of the earth.

The ſoil of Egypt, as far as the flood extends, has been formed by the mud, which the Nile carries with it, and is exceeding fruitful. As ſoon as the waters retire, the huſbandman has little more to do, than to harrow his corn and other ſeeds into the mud; but ſometimes is obliged to temper the mud with ſand, to prevent the corn from being too rank; in a month or two the fields are covered with all manner of grain, peas, beans, and other pulſe; and where it is not ſown, the graſing ground becomes rich paſture, into which the cattle are turned out in November, and continue at graſs till the flood returns.

The Lower Egypt is all a ſea at the height of the flood, and only the tops of the foreſts and fruit trees appear, intermixed with towns and villages, built upon natural or artificial hills; and in the dry ſeaſons are ſeen beautiful gardens, corn-fields and meadows, well ſtocked with flocks and herds, which a little before were under water: then they enjoy a ſerene heaven, and pure air, perfumed with the bloſſoms of oranges, lemons, and other fruits.

fruits. When their pulſe, melons, ſugar-canes, and other plants want water, they convey it from their ciſterns and reſervoirs, by little channels, into their fields and gardens, where, beſides the fruits already mentioned, they have dates, plantains, grapes, figs, and palm trees, from which wine is drawn.

SECT II.

A particular Account of the moſt curious natural Productions of Egypt, *in the Animal, Vegetable, and Foſſil Kingdoms; of the River* Nile, *its Springs, Inundations, Cataracts, &c. and of other natural objects of Curioſity.*

ANIMALS. VEGETABLES *and* FOSSILS.

THERE are but few animals peculiar to Egypt, and of thoſe few the moſt curious and remarkable are inhabitants of the river Nile. In this river is found the Hippopotamus, or River-horſe, called alſo the Sea-horſe, the Horſe-whale, and the Morſe. It ſeems to be a native of Abyſſinia: but now and then comes down the river into upper Egypt, and has been already deſcribed in another part of this work *.

The Crocodile is another amphibious animal, which inhabits the Nile, though not peculiar to that river, being alſo found in the Ganges, and other large rivers of India. It is ſhaped like a lizard, has four ſhort, thick legs, and its feet are armed with claws. Its back is covered with impenetrable ſcales, like

* See Vol. VIII. p. 145.

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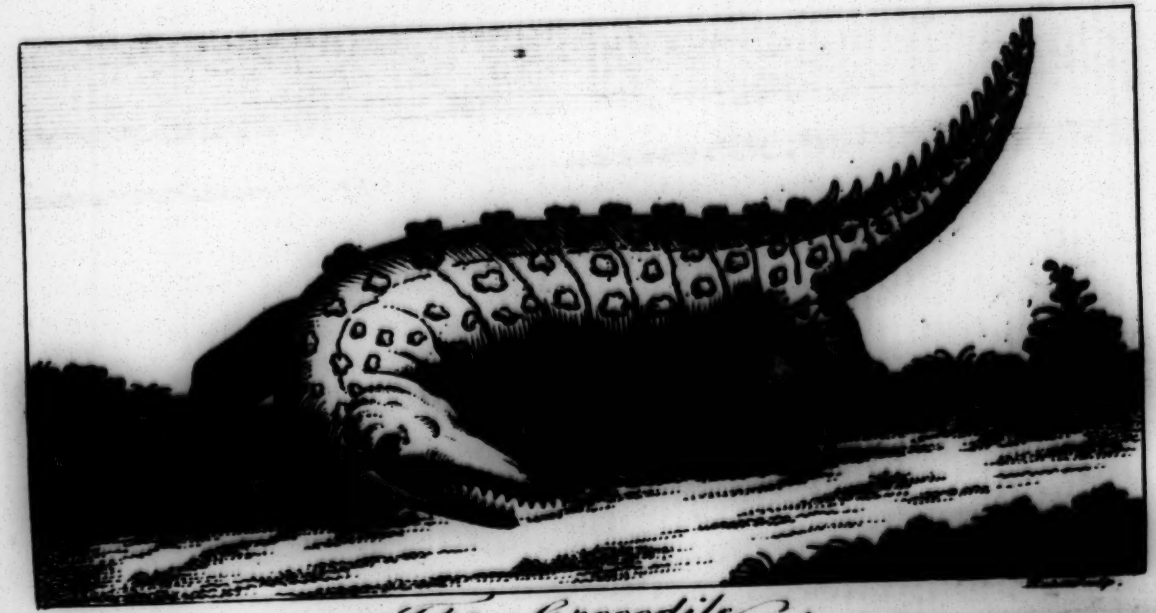

The Crocodile.

BIBLIOTHECA · BODLEIANA

ſome old pieces of armour, and reſembling the heads of the nails in an old court gate; but its belly is ſoft, and eaſily wounded. It has a broad flat head, a ſnout almoſt like a hog, and the opening of its mouth reaches to its ears. The teeth of this animal are white, long, ſharp, and ſomewhat crooked, and its upper jaw is moveable, which can be ſaid of few other creatures *. It has no tongue, but there is a fleſhy ſubſtance lies along its lower jaw, which perhaps may ſerve to turn its food. Crocodiles have pretty large eyes, and are very quick-ſighted, which is partly owing to a ſort of channel at the back of each eye, whereby they can ſee behind them as well as before. It is ſaid they can run faſt, but as they cannot eaſily turn their long unweildy bodies, their prey has the greater opportunity of eſcaping. Some crocodiles are twenty-five or thirty feet in length, but tho' they are very cruel and voracious, they ſeldom venture to attack men in companies, nor even a ſingle perſon unleſs they can do it by ſurprize. It is reported, that they cannot take a man ſwimming in the water †; but if a

* The ſame is obſervable in parrots, and in the Acus vulgaris or gar-fiſh, and perhaps in no other animal. See Ray's Synopſ. Piſc. p. 109.

† This ſeems to be a miſtake; for Mr. Moore tells us of one of the African company's ſlaves, who was carried away by a crocodile as he was waſhing himſelf in the river Gambia; and Thevenot ſays, that nobody cares to ſwim in the Nile, for fear of being ſeized by theſe devouring animals.

man or beaſt ſtand near the river, they jump out ſuddenly, and ſeize him with their fore claws, or beat him down with their tails, wherein their ſtrength chiefly conſiſts. They ſeldom go above twenty or thirty yards from the river, but lie baſking in the winter upon banks of ſand, and in the heat of ſummer they generally keep under water. When they are diſturbed, they do not ſeem much afraid, but walk away ſlowly, and hide themſelves gradually in the river. The manner of their propagation is by laying eggs, to the number of fifty or ſixty, and covering them about two feet deep in the ſand, where they are hatched in twenty or thirty days. The people ſearch for theſe eggs with an iron pike in order to deſtroy them *, for as ſoon as the young ones are hatched they crawl into the river. The fleſh of the crocodile, according to Thevenot, is very good food, and not poiſonous, as ſome have imagined. The uſual way of killing crocodiles, is perhaps by ſhooting them in the belly, where they are vulnerable, as is obſerved already; but travellers give us an account of other methods of taking them. Sometimes they dig pits near the river, cover-

* Whether the Egyptians eat the eggs of the crocodile, or not, travellers have not informed us; but Mr. Moore ſays, he has ſeen the natives about the river Gambia eat them, even when they had young ones in them as long as his finger, on which account they reckon them the greater dainty. The eggs are about as big as thoſe of a goose.

ing

ing them ſlightly over, ſo that the crocodiles fall into them when they come aſhore; and having let them remain there ſeveral days, till they are weakened by hunger, they hamper them with ropes, and draw them out alive. They have likewiſe a way of making ſome animal cry near the river, which entices the crocodile out, and a man who lies concealed, takes an opportunity of thruſting a ſpear into his body; which being faſtened to a rope, they let him run into the water to ſpend his ſtrength, then drag him out, and tie his jaws together.

After the crocodile it is natural to take notice of a large Egyptian rat, ſuppoſed to be the Ichneumon of the antients, which, according to them, uſed to creep down the crocodile's throat while he ſlept with his mouth open, and having fed upon his liver, gnawed his way out again through the belly of that animal; but this ſavours too ſtrongly of fable to want confutation *. However, this rat is ſaid to be of great ſervice in Egypt, by hunting out and breaking the crocodile's eggs, and thereby preventing the increaſe of that deſtructive creature. The make of the Ich-

* Of the ſame fabulous ſtamp is the account we have of a little bird called Trochilus, which is ſaid to be the only creature that the crocodile is in friendſhip with, and does not endeavour to deſtroy; but this, it ſeems, is for the ſervice the bird does him, by flying into his mouth, and feeding upon the meat that ſticks between his teeth, or cleanſing his jaws of the leeches that infeſt them.

neumon

neumon is much like that of the Stote or polecat, but it is conſiderably larger. The dung of this animal, mixed with muſtard-ſeed and vinegar, is eſteemed good againſt the gout, being applied to the part affected; and it is ſaid to be ſudorific, to cure the cholic and venomous bites, and to purify the blood.

Amongſt the winged tribe of Egypt we find the Ibis, a bird held in great veneration by the antient Egyptians, on account of their deſtroying great numbers of ſerpents and other pernicious or uſeleſs reptiles; but this bird is now rarely to be ſeen in the country. Thoſe that are obſerved about the iſlands of the Nile are moſt of them greyiſh; whereas Herodotus deſcribes two kinds of them, the one all over black, and about the ſize of a heron, the other white, except the head, neck, and ends of the wings and tail, which are black as the former. However, though the Ibis be not ſo common in Egypt as heretofore, the want of it is ſufficiently ſupplied by the ſtork, a bird almoſt as much eſteemed and reverenced by the preſent Mahometans in that country, as the Ibis was by its antient inhabitants; to kill a ſtork, or even to moleſt it, being accounted a ſort of profaneneſs *.

Another bird much regarded in Egypt, is a ſort of large hawk, of a browniſh colour,

* A particular account of the ſtork, and ſome conjectures relating to the origin of the regard paid to it, ſee in vol. VIII. p. 51. & ſeq.

with

with a very fine eye, which may be looked upon as a domeſtic animal, as it frequents the tops of houſes, ſo that one may often ſee hawks and pigeons ſitting quietly together. This may ſeem ſtrange, but it is to be obſerved, that theſe hawks are not birds of prey, tho' they eat fleſh when they happen to find it.

The wild geeſe in Egypt, of which they have abundance, are of a different kind from ours in Europe; and vaſt numbers of wild ducks frequent the pools in the low grounds, which are not quite dry till ſome months after the inundation of the Nile is abated. Their partridges are likewiſe very different from thoſe of other countries, being about the ſize of a ſmall dove. The cock is a beautiful brown bird, adorned with large ſpots of a lighter colour; and the feathers of the hen are like thoſe of a woodcock. As to their tame fowls, beſides the common ſort, they have a kind of hens which are very cheap, and little inferior to geeſe in bigneſs.

The ſandy and mountainous tracts, which run along each ſide of the fertile part of Egypt, abound with animals of the ſerpentine and lizard kinds. Of the former, a horned viper, the Ceraſtes of the antients, is the moſt common ſpecies, and great numbers of them are taken, being reckoned of excellent uſe in medicine. They are of a yellowiſh colour, like that of the ſand in which they are found; and have a ſort of horns, ſomewhat reſembling

thoſe of ſnails, but of a real horny ſubſtance. They are remarkable for living a long time without any manner of ſuſtenance, as has been found by experience; for Dr. Shaw tells us, he ſaw a couple of theſe vipers, which an apothecary at Cairo had kept five years in a bottle without any ſort of food, unleſs a little ſand may be reckoned as ſuch, in which they coiled themſelves up at the bottom of the bottle. When the doctor ſaw them they had juſt caſt their ſkins, and were as briſk and lively, as if but newly taken.

A ſerpent of great bulk, called Thaibanne, perhaps the Thebanus Ophites of the antients, is found in Egypt, though not very frequently. Some of them are ſaid to be three or four yards long, and as thick as a man's arm. We find no particular deſcription of this ſerpent, but it is ſaid to have a fleſhy ſubſtance reaching, on each ſide of its neck, from its jaw to about a third part of its body, which it can extend or contract at pleaſure, and thereby throws itſelf forwards ſurprizingly.

In Egypt there are ſeveral ſorts of aſps, whoſe poiſons have different effects, but are all finally mortal. That ſpecies which Cleopatra is ſuppoſed to have uſed to put an end to her life, and thereby avoid the diſgrace of being led as an ornament in Cæſar's triumph, is of a ſingular nature, being very poiſonous, and yet ſuppoſed to eject a leſs quantity of venom than any other of the kind.

kind. This is certain, that the punctures made by its teeth are hardly perceptible, but the effects of it are very ſurprizing; for after a perſon has been bitten about an hour, he finds himſelf heavy, and inclined to ſleep, without any pain or diſorder of mind; his limbs gradually loſe their ſtrength, a pleaſing ſtupidity ſucceeds, and at length he dies quietly, even without a groan. This ſort of Aſp has very red eyes, and two of its longeſt teeth are hollow, from whence its poiſon proceeds. Its ſcales are hard, dry, and reddiſh, and its neck ſwells conſiderably when it is provoked.

Another ſpecies of Aſps, which ſeem to be what we call Darts, have their holes in the banks of the Nile, from whence they ſpring out ſuddenly upon the unwary paſſenger; and their bite is ſo venomous, that amputation is the only cure, without which the patient dies in terrible agonies. The belly of this Aſp is white, his back of a deep blue, and on each ſide he has a black line from head to tail. His body is of an aſh-colour, full of round black ſpots no bigger than lentils, each of which is encompaſſed with a circle.

The Chameleon is an animal very common in Egypt, but having already given a particular account of it, and its ſurprizing properties, we refer the reader thither *, to avoid unneceſſary repetitions; and only obſerve,

* See Vol. X. p. 10, & ſeq.

that

that the Chameleons of Egypt are generally larger than thoſe of other countries.

The Skink, which is commonly found under flat ſtones, or in the holes of old walls and ruins, is taken by ſome to be a Land crocodile, as it exactly reſembles that which frequents the water; but it is very ſmall and harmleſs, feeding chiefly upon fragrant herbs and flowers.

There is another ugly Lizard in Egypt, that is ſeen about the walls of decayed buildings, but in the greateſt numbers at Alexandria.

Laſtly, there is a Lizard called Worral, which is ſometimes three feet or forty inches in length, and ſix or ſeven inches broad, uſually of a bright reddiſh colour, with dark ſpots intermixed. It has no teeth, but a forked tongue, which it puts out like a ſerpent, and feeds upon flies and the ſmaller lizards. Holes and caves in the mountains are the places it frequents, where it ſleeps in the winter, and only appears in the heat of ſummer. It is a harmleſs creature, of great docility, and particularly remarkable for its being affected with muſic *.

It

* Dr. Shaw ſays he has ſeen ſeveral of theſe Lizards keep exact time and motion with the Derviſes in their circulatory dances, turning when they turned, and ſtopping when they ſtopped; and this

It is not to be ſuppoſed, that ſuch a country as Egypt, which is very hot and annually overflowed, ſhould produce any great variety of plants; and it may be preſumed that very few, except thoſe of the aquatic kind, were originally produced in Egypt, but have been tranſplanted thither from other countries. The celebrated plant called Papyrus, or Biblus, which formerly grew plentifully on the banks of the Nile, and is perhaps a native of Egypt *, is now rarely to be met with, the poorer ſort of people having almoſt deſtroyed it, by digging up the roots for fuel. This plant was made uſe of by the antients to write upon, and thence our paper had its name. It has a large ſtem, from whence ſome ſay, they took the pith, which they worked into a white paſte or glue, and of that made a kind of paper, almoſt in the ſame manner as we do with our linen-rags; but others ſay,

the Doctor ſuppoſes may have ſome relation to the quality which the ſerpent is imagined to have, of being naturally affected with muſic: but Dr. Pocock, who procured a Worral alive, could not perceive that muſic had any influence upon that animal.

* Though the Papyrus grew chiefly in Egypt, it was alſo found in India; and Guilandinus aſſures us he ſaw in Chaldea, at the confluence of the Tigris and Euphrates, large fens, wherein with his own hands he plucked a Papyrus differing in nothing from that of the Nile. Strabo likewiſe ſpeaks of a ſort growing in Italy; but we do not find it was ever uſed for making paper.

they uſed the inner rind for that purpoſe *. According to Pliny, the root of this plant is as thick as a man's arm, and ten cubits long, from whence ariſe a great number of triangular ſtalks, at the extremities whereof its flowers are ranged in cluſters. Its root is woody and knotty, its leaves long like thoſe of the bulruſh, and its taſte and ſmell reſemble thoſe of the Cyperus, of which ſome reckon it a ſpecies.

It is to be obſerved, that beſides paper the antients made ropes, ſails, mats, blankets, ſhoes, and ſeveral domeſtic utenſils of the Papyrus; but more uſeful inventions having

* The manner of making the Egyptian paper was as follows. They began with lopping off the root and head of the Papyrus, as of no uſe in this manufacture; the remaining ſtem they ſlit lengthways into two equal parts, and from each of theſe they ſtripped the thin ſcaly coats or pellicles, whereof it was compoſed, with the point of a penknife. The innermoſt of theſe pellicles were reckoned the beſt, and thoſe neareſt the rind or bark the worſt; and accordingly they were kept ſeparate, and conſtituted different kinds of paper. As the pellicles were taken off, they extended them on a table, and then two of them were laid over each other tranſverſely, ſo that their fibres made right angles. In this ſtate they were glued together with the muddy water of the Nile, then preſſed, dried, and laſtly flatted and ſmoothed by beating them with a mallet; though ſometimes, with a hemiſphere of glaſs or the like, they gave them a farther poliſh.

ſet

ſet all this aſide, the plant is now neglected, and almoſt extirpated out of Egypt.

Here it may not be amiſs to add ſome remarks on the antiquity of the art of making paper of the Papyrus, the origin whereof is indeed very obſcure, though undoubtedly it was firſt diſcovered in Egypt, and, according to Iſidore, in the city of Memphis. The æra of the invention is fixed by Varro, the moſt learned of the Romans, to the time of Alexander the Great, after the building of Alexandria by that conqueror; but ſeveral objections of no ſmall weight are brought againſt this deciſion. Pliny recites a paſſage out of a very antient annaliſt, wherein mention is made of paper-books found in Numa's tomb, who was prior to Alexander above three hundred years. In effect, Guilandinus maintains, with great erudition, that the name and uſe of the Papyrus were known to the Greeks long before Alexander conquered Egypt; and yet ſome have doubted whether the art of manufacturing the Papyrus, was ſo antient as Alexander's time, chiefly on this ground, that for two hundred years after Alexander, men wrote on ſkins and barks of trees. But this reaſoning is not concluſive; the ſcarcity of the new manufacture may account for the uſe of thoſe things, and paper might have been known in Egypt, Judea, Syria, and other parts of Aſia, long before the birth of Alexander, though not in common uſe; but it came later to the Europeans, and probably

was firſt publicly known amongſt them by means of Alexander's conqueſt.

When the manufacture of the Egyptian paper ceaſed,* is another queſtion; for at preſent it may be reckoned amongſt thoſe arts that are loſt. Mabillon maintains, that it continued till the eleventh century, or at leaſt that it was uſed in the ninth, he endeavours to evince from ſeveral papal bulls wrote on it at that time. The learned count Maffei, on the contrary, maintains with more probability, that the Papyrus was generally diſuſed before the fifth century, for we find no authentic records written on it of a later date; thoſe bulls of popes, cited by Mabillon, appearing rather to be written on cotton-paper. This, however, relates only to the general uſe of the Papyrus; for it is not to be wondered at, if particular perſons continued to make it ſeveral hundred years after it firſt began to loſe its reputation. In reality, a more commodious ſort of paper, made of cotton, having been invented in the Eaſt ſome ages before, and thence introduced into Europe, ſeems to have turned the Papyrus out of doors*; to which the

* We are told that ſeveral books, written on the leaves of the Papyrus, have been preſerved to our days. Mabillon ſays, he had one of them, and mentions two or three more, beſides divers diploma's or charters, which appear to be at leaſt eleven hundred years old. But the deciſions of that

the continual wars with the Saracens, whereby the traffic to Alexandria, where it was manufactured, was rendered precarious, might poſſibly contribute.

The Palm or Date tree is one of the moſt uſeful that Egypt produces, but we have little to ſay concerning it here, having deſcribed it, and given an account of the manner of its propagation, amongſt the vegetables of Perſia. The largeſt in Egypt grow about Faiume, where they are ſawed into boards, which is not uſual in other places. We have only to add, that the dates are ripe in November, and are reckoned very proper to be eaten in that cool ſeaſon, being of a warm nature, and comfortable to the ſtomach. From this fruit they likewiſe draw a tolerable ſpirit, much uſed by the chriſtians of Upper Egypt; and this liquor in ſome meaſure ſupplies the place of wine, which providence has not given to the country.

The Dumez, the ſycamore of the antients,* which the Europeans call Pharaoh's fig, is common

that learned father concerning manuſcripts are not always infallible; witneſs his taking the manuſcript of St. Mark's goſpel at Venice to be written on the Egyptian paper, and that of Joſephus at Milan not to be ſo; whereas Maffei ſhews that the former is cotton-paper, and that the latter appears plainly to be Egyptian.

* It is to be obſerved, that what we now improperly call the Sycamore-tree is in reality a kind of Maple, and very different from the Sycomorus of

mon enough about the villages near Cairo, and is likewiſe found in ſome parts of Syria. It is a large ſpreading tree, with round leaves, and bears a fruit like the common figs, but ſomething ſmaller, and not much eſteemed. It is remarkable, that the fruit grows on ſeveral ſhort branches without leaves, that ſhoot out from the main limbs of the tree; and at the end of the fig there gathers a ſort of water, which is let out by cutting the ſkin, otherwiſe the fruit will not come to perfection. The tree is propagated by planting its branches, which grow very faſt.

The Caſſia Fiſtula, which we call the Pudding-pipe-tree, is not uncommon in Egypt, though it does not ſeem to be a native of the country. The tree is tall, its bark aſh-coloured, its wood very firm, its grain cloſe; and at the center it is black, but yellowiſh towards the outſide. Its flowers are alſo yellowiſh, and produce a fruit in the form of a long pod, which when ripe is full of a black ſweetiſh pulp, divided by ſmall woody cells; and in this pulp are found little hard grains, ſhaped like hearts, which are the ſeed of the tree. Caſſia likewiſe grows in Braſil and in the Antilles, from which iſlands we chiefly receive it, though heretofore the popular Caſſia was that brought from the Levant. The Egyptians never

the antients. Of the wood of the ſycamore the antient Egyptians made their coffins, ſome of which remain found to this day.

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uſe the Caſſia pods till they are four months old; for when young and recent, they are obſerved to be noxious. They uſe the pulp extracted from the pod, in form of a bolus or potion; and are of opinion that taken internally it cools and purifies the blood. It is alſo found very beneficial to the bladder and kidneys, as extinguiſhing any immoderate heat of thoſe parts, and preventing the generation of ſtones and gravel. The Egyptians likewiſe uſe it to alleviate the gout and hot pains of the joints, applying it by way of plaiſter to the part affected. It allays thirſt, and is therefore good in feveriſh diſorders.

The Acacia, or Egyptian Thorn, ought to be mentioned amongſt the vegetables of Egypt, as being of conſiderable uſe in medicine, and growing chiefly in that country and Arabia. From the green pods it bears, a juice is expreſſed and inſpiſſated, which is brought to us in bladders, containing globular maſſes weighing from four to eight ounces, which are externally blackiſh, but internally of a ſhining brown colour, hard, brittle, and of an auſtere taſte. This juice we call Acacia, and uſe it for preventing inflammations in the eyes, for curing ulcers in the mouth and fiſſures of the lips, for faſtening the teeth and ſtrengthening weak joints, and for ſtopping hæmorrhages and fluxes. The German Acacia is a counterfeit ſort, being the juice of unripe ſloes inſpiſſated, and put up in bladders like the former.

In Egypt there is a tree called Sount, which ſeems to be a ſpecies of the Acacia, and probably a native of the country. It is often planted on the ſides of the road, and there are little woods of it near ſome villages. Its keys or pods are uſed, inſtead of bark, in tanning of leather.

There is another ſort called Fetneh, which is cultivated in gardens, its yellow flowers being eſteemed on account of their ſweetneſs; but its roots, when opened and bruiſed, emit a diſagreeable ſmell, and that perceptible to a conſiderable diſtance.

Sena is the leaf of a ſhrub which is not peculiar to Egypt, but cultivated in ſeveral parts of Aſia; and this is confeſſedly the beſt ſort, being much ſuperior in goodneſs to that of Italy. The ſhrub grows to the height of five or ſix feet; its leaves are ſhaped like the point of a ſpear, its flowers are yellow, and its fruit is a greeniſh flat pod, containing ſeveral cells of ſeeds reſembling grape-ſtones, which ſome phyſicians prefer to the leaves themſelves. Sena purges phlegm in a particular manner; but as it is apt to gripe, it ought to be given with caution to thoſe who have weak bowels, or are of an inflammatory habit of body. That Sena is to be choſen whoſe leaves are the ſharpeſt pointed, and ſmell freſheſt; the brightneſs of its colour, and quickneſs of its flavour, are alſo indications of its goodneſs.

The

The tree producing the fruit called Sebeſtens, is found in Egypt, as well as in ſeveral parts of Aſia. It flowers in the ſpring, and the fruit is ripe in autumn, reſembling a little plumb or prune, being of a blackiſh colour, its pulp very ſweet and glutinous, and incloſing a triangular kernel. Sebeſtens are of ſome uſe in medicine, as they moiſten, ſoften, and obtund the acrimony of the humours. They are principally uſed in ſharp catarrhs, bilious fevers, and obſtructions of the belly; and in ſhort, as in figure, ſo in virtues, they reſemble damſons. A kind of glue or birdlime is made of this fruit, called Birdlime of Alexandria; and the Egyptians bruiſe it, and apply it as a cataplaſm to diſcuſs hard ſwellings.

In the Lower Egypt, eſpecially near Roſetto, the Lotus grows in great abundance. This plant is a ſpecies of the water-lily; its leaves float on the water, and cover its ſurface, producing many flowers, which were formerly wove into the crowns of conquerors. The antient Egyptians made bread of the middle or pulp of the Lotus dried, which reſembles that of a poppy; and they uſed to eat the root of it, which is round, and as big as an apple. After the flowers follow round green pods, which contain a ſeed not unlike that of a cabbage. At preſent the Egyptians make a drink of this plant, mixed with ſugar, which is good againſt inward heats; and in ſummer they eat the ſtalks and heads of it raw, which are ſweet, moiſtening, and cooling.

The

The Alhenna, Alkenna, or Alcanna, as it is called in our ſhops, is a ſhrub that ſhoots forth a great many branches, bearing leaves like thoſe of an olive tree, but ſhorter, broader, and of a more pleaſant green. Its flowers are ſmall, and ſet like thoſe of the elder; and having an agreeable ſmell, the Egyptians uſe them in their baths. They alſo make a ſort of yellow dye of the ſeed of this plant, with which the women paint their nails, and ſometimes their hair, by way of ornament. As to its medicinal virtues, it promotes the menſes, and its leaves have an aſtringent quality, ſo that being chewed they heal ulcers in the mouth. A decoction of them cures burns; and they are good againſt carbuncles, and other fiery inflammations, if applied as a cataplaſm. The flowers bruiſed in vinegar eaſe pains of the head, being applied to the forehead.

Amongſt other medicinal plants, Egypt affords the Coloquintida, though it is far from being peculiar to that country. The fruit of this plant, uſually called Bitter-Apple, is about the ſize of a large orange, and full of pulp and ſeeds, both which are extremely bitter, eſpecially the former. Coloquintida is brought to us from the Levant, and is of conſiderable uſe in medicine, but chiefly in officinal compoſitions, being an ingredient in moſt purging pills. It is one of the moſt violent purgatives now known, inſomuch that it ſometimes excoriates the paſſages, brings away pure blood, produces ſtrong convulſions, and brings on a fatal

fatal ſuper-purgation. It is therefore ſeldom given inwardly in extemporaneous preſcriptions, unleſs with great caution, and to perſons of a robuſt conſtitution. Some ſay that Coloquintida will purge children, by being reduced to a paſte with ox gall, and applied to the navel.

To this account of the vegetable productions of Egypt, we ſhall add a few particulars relating to their harveſts, of which they have two in a year, a ſpring-harveſt from January to May, and a winter-harveſt about October. For the latter, before the land is overflowed, they ſow rice, Indian wheat, and what they call the Corn of Damaſcus, which produces a large cane, and has an ear like millet. They alſo plant their ſugar-canes at the ſame time; for all theſe require a great deal of water, eſpecially rice, the largeſt crops whereof are produced near Damietta and Roſetto, where the lands are low, and more eaſily overflowed than thoſe higher up the river. Their wheat and barley are ſown in November, or ſomewhat ſooner or later, according as the waters of the Nile retire; and what is ſown at this time of the year, they reap in March and April. At the ſame ſeaſon they ſow flax *, lentils, lupines,

* Here it may not be amiſs to obſerve, that tho' Egypt produces very good flax, it is not now ſo remarkable for its fine linen as it was antiently; which was carried to ſuch a perfection, that the threads

pines, and other vegetables of the like nature, which they gather in the ſpring; and about November they likewiſe cultivate their Carthamus, or Safranoun as they call it, which grows like ſuccory, and the flower of it being of uſe in dying, is accordingly brought into Europe. Their wheat is bearded, and their barley has ſix rows of grain in the ear, but is a coarſe ſort, and chiefly eaten by horſes. They have no oats, but plenty of beans, with which they feed their camels; and the people likewiſe eat them green, both raw and boiled. Neither have they any peaſe, but a ſort of vetch with one large grain in each pod, which is eaten raw when green, and boiled when dry, and is not much inferior to peaſe in taſte.

With reſpect to the Foſſils of Egypt, little is to be ſaid, as the country produces nothing remarkable upon that ſubject, except its marble, particularly its fine porphyry, which has been already deſcribed *.

threads could ſcarce be diſcerned by the niceſt eye. They had ſuch plenty of it, as not only to cloath their prieſts and people of condition, and to make ſhrouds for their dead, but to export conſiderable quantities of it into other countries. In ſhort, this manufacture was in great reſpect all over the eaſt; and the ſuperfine ſort of it, called Byſſus, was often dyed in purple, and bore an exceſſive price.

* See Vol. X. p. 49.

The SPRINGS, INUNDATIONS, CATARACTS, *&c. of the* NILE.

THE river Nile has always been reckoned one of the greateſt curioſities of Egypt, and to that river its fertility and happineſs is chiefly owing; for as it ſeldom rains in the inland parts of the country, and the ſoil is naturally dry and ſandy, if the lands were not annually watered by the overflowing of this river, Egypt, inſtead of the moſt fertile, would be one of the moſt barren regions in the world.

The ſources or ſprings of the Nile were abſolutely unknown to the antients, and baffled all their enquiries *; but our modern travel-

* The diſcovery was in vain attempted by the Perſians, Greeks, and Romans, and ſuch ſtreſs did they lay upon it, and think it ſo honourable an enterpriſe, that Lucan makes Cæſar ſpeak to this effect:

Long has my curious ſoul, from early youth,
Toil'd in the noble ſearch of ſacred truth;
Yet ſtill no views have urg'd my ardour more,
Than Nile's remoteſt fountain to explore:
Then ſay, what ſource the famous ſtream ſupplies,
And bids it at revolving periods riſe;
Shew me that head from whence, ſince time begun,
The long ſucceſſion of his waves has run:
This let me know, and all my toils ſhall ceaſe,
The ſword be ſheath'd, and earth be bleſs'd with Peace.

Letter prefixed to Moore's Travels.

lers, especially the Portuguese missionaries, who claim the honour of the discovery, have found that they lie in Abyssinia, or Ethiopia Proper, in the eleventh or twelfth degree of north latitude; and some authors, particularly Ludolphus, are of opinion that the Nile divides itself into two branches, one of which runs westward into the Atlantic ocean, and the other taking its course northward through Egypt, falls into the Mediterranean. Whether this be so or not, or whether the river Gambia be the western branch called Niger, is not our business to enquire; but the native country of the Nile being now discovered, the cause of its inundation is manifest. To say nothing of the false conjectures that have been made about it, it is now universally allowed to be occasioned by the great rains that fall in Ethiopia during the months of April and May, whereby the river is so swelled as to lay that country almost entirely under water, and afterwards Egypt in its course towards the Mediterranean. Nor is this inundation peculiar to the Nile, but common to it with other rivers that have their rise or course between the Tropics, where heavy rains constantly fall at a certain season of the year, which cause them to break through their ordinary bounds, and overflow the adjacent countries in their passage to the sea, particularly in Siam, Bengal, and other parts of the East Indies. The northern winds, called Etesian by the antients, as blowing annually during a certain time, have been likewise supposed to contribute not a little to the overflowing

flowing of the Nile, by retarding its courſe, and forcing the ſea againſt the mouth of the river; but if theſe winds have any ſuch effect, it muſt be inconſiderable, as Ludolphus obſerves, though he allows they may render the increaſe ſomewhat unequal, as they blow weaker or ſtronger. Thus far indeed they may be a cauſe of the inundation, by driving the clouds formed by the vapours of the Mediterranean as far as the mountains of Ethiopia, where they condenſe and fall down in violent rains; but even this hypotheſis is not very plauſible.

Theſe rains, however, being undoubtedly the cauſe of the Nile's overflowing, let us now conſider its gradual riſe, and the beneficial effects it produces. The Nile begins to ſwell in the month of May, but its increaſe is not conſiderable in the Lower Egypt, till about the 20th of June, nor is any public notice taken of it till the 28th of that month, at which time it is uſually riſen five or ſix peeks, a Turkiſh meaſure equal to about five and twenty inches. Being come to this height, the public cryers proclaim the riſe of the river in the city of Cairo, and continue to publiſh how much it increaſes every day, till it riſes to ſixteen peeks, at which time they make great rejoicings; and this uſually happens at the latter end of July, or before the 20th of Auguſt, but the ſooner it happens, they have the greater hopes of a plentiful ſeaſon. If the Nile do not riſe to ſixteen peeks, the people pay no tribute that

year to the Grand Signior; but a ſtill greater height is neceſſary to cauſe a general flood, and prepare the lands for cultivation. Eighteen peeks, Dr. Pococke informs us, are reckoned but an indifferent Nile, twenty a middling one, and twenty-two a very good one, beyond which it ſeldom riſes. If it chance to riſe higher than twenty-four, the inundation is ſaid to be prejudicial, the waters in that caſe not retiring ſoon enough for the people to ſow their corn; but we ſcarce know any inſtance of this nature. The Nile is uſually at its greateſt height about the middle of September.

As the river cannot of itſelf overflow the lands every where in the neceſſary proportion, the people have cut, with incredible labour, a vaſt number of canals and trenches from one end of Egypt to the other, ſo that almoſt every town and village has its canal, which is opened at the proper time, and conveys the water of the Nile to diſtant places. It is from theſe canals, where the banks of the Nile are high, that the lands are overflowed; but it is otherwiſe where they are low, particularly in the Delta, which is that part of Egypt that lies between the two mouths of the river. Canals are carried along the higher grounds, that the water may have a fall from them to the lower parts; and from the great canals it is drawn out into ſmall channels, and conveyed all over the country. It is likewiſe obſervable, that as they have dikes or banks to keep the water out of the canals till the river is riſen to a

proper height to let it in, ſo in ſome of them they have contrivances to keep it in after the Nile is fallen, and alſo preſerve it in certain lakes or ponds, from whence they can let it out upon their lands at pleaſure.

The reader, however, is to underſtand, that ſome parts of the country lie too high to be watered by means of the canals, and ſeveral gardens and plantations require more refreſhment than what they receive from the annual inundation; and on this account they are obliged to raiſe water from the river, which is lodged in ciſterns or reſervoirs contrived for that purpoſe. This is generally done by the Perſian wheel, a machine turned by oxen, which carries a rope hung with ſeveral veſſels, which fill as it goes round, and empty themſelves at top into the reſervoir. They have another contrivance where the bank of the river is high; in which caſe they make a baſon on the ſide of it, fixing near it an upright pole, and acroſs the top of that another with an axle, at one end whereof hangs a great ſtone, and at the other a leathern bucket, which being drawn down into the water by two men, is raiſed up again by the weight of the ſtone, the men directing it, and emptying it into the baſon. The former of theſe machines are chiefly uſed in the lower parts of Egypt, the latter in the higher; for as we advance up the river, the difficulty of raiſing the water increaſes.

We may judge how much the fertility of Egypt is owing to the inundation of the Nile, when we conſider that it leaves behind it a ſtratum of mud or ſlime, which, without any other manure, renews all the ſtrength of the ſoil that the foregoing harveſt had impaired; nay, it is frequently found neceſſary to temper it with a little ſand, to abate its exceſſive richneſs. And here it is worth obſerving, that the ſurface of the ground muſt have been conſiderably raiſed in a long courſe of years, by theſe repeated acceſſions of mud and ſlime, ſo that formerly a leſs riſing of the Nile was ſufficient to overflow the country than at preſent. As to the quantity of mud thus annually left by the river, it is a point not eaſy to determine, but Dr. Shaw ſuppoſes that the ſurface of the land of Egypt is thereby raiſed ſomewhat more than a foot in a hundred years; according to which computation, the perpendicular acceſſion of ſoil from the deluge to the preſent time muſt have been about two and forty feet. And hence the Doctor imagines, that in proceſs of time the whole country may be reduced to the greateſt barrenneſs, by being raiſed ſo high that the river will not be able to overflow its banks. But Dr. Pococke is of another opinion, as ſuppoſing that a great quantity of ſoil is annually carried off in the productions of the earth, which in Egypt is not ſupplied by manuring, and that the bed of the Nile may be raiſed by the ſubſiding of the heavier ſandy particles; for which reaſon he thinks it improbable that the land will ever

riſe

riſe to ſuch a height, as to be deprived of the uſual inundations. He obſerves however, if that ſhould ever be the caſe in the Lower Egypt, the inhabitants would only be in the condition of thoſe of Upper Egypt, who are obliged to raiſe the water by art and labour.

With reſpect to the diſtribution of the waters of the Nile by means of canals, &c. we ſhall only add, that there is a great canal which runs from the river quite through the city of Cairo, and ſeveral miles beyond it. Near the mouth of this canal there is a mound or mole, which is every year broken down with great ſolemnity and rejoicing, when the Nile riſes to the height of ſixteen peeks; and thereby the water is conveyed into the city, and from thence into the gardens and the adjacent country. The Baſha himſelf, accompanied by all his great officers, and attended by a vaſt multitude of people, aſſiſts at the ceremony of cutting this bank; and on this occaſion the trumpets and other muſic, the repeated ſhouts of the people, the firing of guns, &c. make an agreeable confuſion. In ſhort, bonfires, illuminations, fireworks, ſeveral ſorts of games and exerciſes *, and whatever can expreſs an univerſal joy, are continued for three days and nights ſucceſſively.

Before

* M. Thevenot, who was twice preſent at the ceremony we are ſpeaking of, tells us, that among other diverting ſights exhibited on that occaſion, he

Before we leave the Nile, it is proper to take notice of its famous Cataracts, which are uſually reckoned ſeven in number, where the river pours itſelf down high precipices with ſuch a prodigious noiſe, that it may be heard at the diſtance of ſeveral leagues. De l'Iſle repreſents one of them as falling from a height of two hundred feet, with a noiſe exceeding that of the loudeſt thunder; and it is ſaid the water breaking with the fall raiſes ſuch thick miſts, that at a diſtance they appear like clouds. It is alſo reported that the water in its fall forms a kind of arch, under which one may walk without being wetted; and the neighbouring people ſeem formerly to have made this a diverſion, there being ſeveral niches and ſeats cut in the rock, and likewiſe ſome grottos, which are now become inacceſſible. Seneca relates a practice of the inhabitants near the cataracts of the Nile, which appears quite incredible, viz. That two of them get into a ſmall boat, the one to guide it, the other to throw out the water, and directing the little

he ſaw two ſwimmers, whoſe performances were very ſurpriſing. One of theſe, with his hands tied behind him, and his feet bound with a chain weighing ten pounds, ſtood upright in the water, and in that manner went from the opening of the canal quite through Cairo, which is three miles and upwards. The other fellow ſwam in chains from one end of the canal to the other, with a pipe in his mouth, and a diſh of coffee in his hand, without ſpilling it; and both theſe ſwimmers were handſomely rewarded.

veſſel

veſſel with their hands, they dextrouſly ſteer through the narrow channels without touching the rocks, till at laſt they are hurried down the precipice by the falling river. The frighted ſpectator now thinks them inevitably ſwallowed up and loſt, but preſently ſees them appear again upon the water at a great diſtance.

Some modern travellers ſeem to confirm this account; but Dr. Pococke, and Mr. Norden, who lately ſaw ſeveral of the cataracts, take no notice of any ſuch practice; nor do they repreſent them ſuch frightful falls as they are generally ſuppoſed to be. They tell us of ſome rocks that lie acroſs the river in three different places, dividing the ſtream, and cauſing ſeveral falls of water; but they make the greateſt of them not above ſeven or eight feet, and others about four or five. They acknowledge, however, that the natives talk of other cataracts beſides thoſe they ſaw, and even reckoned ſeven of them, which ſeems to agree with the accounts of the antients: but as to the Catadupa, thoſe high cataracts whoſe noiſe made the neighbouring inhabitants deaf, they look upon as fabulous.

To this account of the Nile it may be added, that the waters of it run through a canal during ſix months into the lake Mœris, and during the other ſix months flow back from the lake into the Nile. This lake is ſaid to have been dug by a King of Egypt of the ſame name, in order to correct the irregularities of the Nile, by

by receiving the ſuperfluous waters when the river roſe too high, and by ſupplying the lands with water when the river failed, which was let out of the lake into the adjacent country by a great number of canals and ditches. Many of theſe canals are ſtill ſubſiſting, which are equally ſerviceable to the preſent inhabitants of Egypt as they were to the antient, and are attributed, like moſt other works of public benefit, to the Patriarch Joſeph, whoſe name they have given to the great canal whereby the lake has a communication with the Nile.

According to the accounts of Herodotus and Diodorus, this lake was no leſs than three thouſand ſix hundred ſtadia, or four hundred and fifty miles in circumference, whereas Pomponius Mela makes it no more than twenty miles; but the critics ſuppoſe this to be a miſtake in Mela's copy, and have accordingly corrected it by thoſe hiſtorians. The truth ſeems to lie between theſe two extremes, for travellers of veracity aſſure us, that the lake of Mœris is at this day between forty and fifty miles in length, and ten or twelve in breadth; though the extent of it varies as the Nile ſinks or riſes. Its banks are of a blackiſh ſoil, between which and the water the ground is ſlaty, and part of it covered with a deep ſlimy mud, with a thin cake of ſalt upon its ſurface. The water has a muddy taſte, is almoſt as ſalt as the ſea, and conſequently very diſagreeable; but it is freſher towards the part where the canal enters from the river.

This

This canal, they ſay, had antiently large ſluices to let the water in or out as occaſion required, and the charge of opening or ſhutting them was no leſs than fifty talents of ſilver, which is near thirteen thouſand pounds ſterling. To anſwer this expence, however, the lake brought in a very conſiderable revenue to the prince; the fiſhery, during the river's retreat, bringing daily a talent, which is more than two hundred and fifty pounds, into the royal treaſury, and about one fourth of that ſum for the reſt of the year; for the lake, as at preſent, afforded great plenty of fiſh, and vaſt number of hands were employed in the fiſhery.

To form this prodigious lake, if it was made by art, a vaſt quantity of earth muſt have been dug up, which naturally led Herodotus to enquire what became of it, and the Egyptians told him it was thrown into the Nile, and diſperſed by the current of that river. This account, however, ſeems far from being ſatisfactory; and as the inhabitants of the country could give no better anſwer to the hiſtorian's queſtion, it is reaſonable to ſuppoſe this ſpacious lake was rather a work of nature than of art, though perhaps King Mœris might enlarge it, by opening or cleanſing its communication with the Nile, erecting flood-gates, and even ſinking ſome part of it deeper than it was originally; and this might give riſe to the tradition that he cauſed the whole cavity to be dug, and formed the lake which retained his name.

SECT. III.

An Account of the moſt celebrated Inventions, Diſcoveries, &c. of the Egyptians; *together with their moſt curious Arts, Manufactures, &c.*

EGYPT was antiently celebrated for being the ſeat of learning, and the nurſery of arts and ſciences, from which Greece and other nations received them. The antient Egyptians were the inventors of many uſeful arts and ſciences. Geometry is on all hands agreed to have been firſt diſcovered in Egypt; and it is ſaid to have owed its riſe to the neceſſity of meaſuring and laying out the lands, the boundaries of which were almoſt annually diſturbed by the overflowing of the Nile. Aſtronomy is generally ſuppoſed to have been invented by the Egyptians, who, by reaſon of the conſtant ſerenity of the air, and the flatneſs of their country, might obſerve the motions of the heavenly bodies earlier, and with more eaſe than other people. Herodotus, indeed, gives the honour of this invention to the Babylonians, but Diodorus derives the Babylonians themſelves, as well as their ſciences, originally from Egypt. The antient Egyptians were acquainted with the true ſyſtem of the world, now known by the name of the Copernican ſyſtem; and from the Egyptians,

tians, Pythagoras learned it, and taught it afterwards in Greece.

These sciences were, however, in those early periods, but in their infancy. Geometry does not appear to have extended to all geometrical quantities, and subtile theories, like that of the moderns: perhaps it extended no farther than plain measuring, and such rules as were of use in common life. And this will appear more probable, if it be considered, that Pythagoras, who travelled into Egypt, in order to acquire the learning of that people, after his return home, offered a Hecatomb on his discovering that the square of the hypothenuse of a right angled triangle, was equal to the squares formed by the base and perpendicular; and Thales, who also learned geometry in Egypt, sacrificed an ox to the Gods, for joy that he had found out a method of inscribing a rectangled triangle in a circle. The professors of astronomy in those early times, appear to have been unable to make any artificial calculations, since Thales was the first who ventured to foretell an eclipse, and Eudoxes and Ptolemy first reduced the heavenly motions into hypotheses and tables.

Claudius Ptolemy, who flourished at Alexandria, in the second century, greatly improved astronomy and geography. He invented that system of the world known by the name of the Ptolemaic system, in which he supposed the earth placed in the center of the uni-

verſe; and as many concentric heavens as planets, above which was that of the fixed ſtars, which were all whirled round the earth in twenty-four hours, from eaſt to weſt, by the revolution of a primum mobile, ſuppoſed above the fixed ſtars: but at the ſame time, each of the heavens had a peculiar motion, by which they made juſt the oppoſite revolution from weſt to eaſt, round the earth, ſome in a few months, that of the ſun in a year, and the others in ſeveral years. Though the ſyſtem of Ptolemy was repugnant both to reaſon and obſervation, and conſequently demoliſhed by Copernicus and his followers, it muſt be owned, that it was a great improvement in Ptolemy, to have conſtructed mathematical inſtruments, of a determined and certain utility, and to have imagined in the heaven an order which, falſe as it was, yet, in many reſpects, enabled the obſervers to give a probable account of the motions of the ſun and moon, and to foretell eclipſes, and to improve geography by certain rules. This laſt uſe Ptolemy himſelf made of his aſtronomy; for by the help of his inſtruments, he was enabled to determine the latitude and longitude of places, and conſequently to conſtruct maps, infinitely better than any of his predeceſſors.

Sculpture is generally ſuppoſed to have been invented by the Egyptians; and the firſt monuments recorded of this nature, were two Coloſſal ſtatues, the one erected in honour of Mœris,

Mœris, King of Egypt, the other in honour of his queen, both placed upon two thrones, ſupported by two pyramids, which were raiſed three hundred feet high, in the middle of the lake Mœris; ſo that notwithſtanding the prodigious circumference of this lake, theſe two ſtatues were conſpicuous from its banks. The invention of Painting is alſo owing to the Egyptians, at leaſt as far as the four principal colours. The knowledge they had of chemiſtry ſeems to make this opinion certain; beſides the paintings ſtill to be ſeen among the old remains of the Egyptian buildings, which have ſo long reſiſted the injuries of time, and which ſtill retain a freſh and lively colouring, ſeem to put the matter beyond diſpute.

With reſpect to the antient ſtate of Phyſic among the Egyptians, Clemens Alexandrinus informs us, that there were forty-two books of Hermes, of great account, which contained all the philoſophy of the Egyptians, and the ſix laſt of which related to medicine, and treated of the conſtruction of the body and its diſorders, with the methods of treating them. Herodotus informs us, that the practice of phyſic was ſo parcelled out and divided, that one phyſician had the charge only of one diſtemper, and might not preſume to take upon him the care and inſpection of more.

In moſt parts of Egypt, and even in Cairo itſelf, the curious mechanical arts are generally in the hands of the Chriſtians. Such artificers as jewellers, ſilver-ſmiths, &c. are fully employed at Cairo, in making ornaments worn by the women *, and about the trappings of their horſes. The Egyptian pebbles, uſed for the handles of knives, ſnuff-boxes, and other toys, are wrought and poliſhed at Cairo to perfection. Their turners are remarkable for making wooden lattices for windows, in a very curious and beautiful manner; and they alſo make ſome both of braſs and iron, of admirable workmanſhip, which they place before the windows of their moſques. Upon the whole, however, the preference is given to the artificers of Conſtantinople, and whatever is brought from thence is much eſteemed by the Egyptians.

The inhabitants of Upper Egypt, if travellers relate the truth, have a very ſingular cuſtom, or art it may be called, that deſerves to be mentioned. They load a boat with hives of bees when the honey is all ſpent, and

* We are told that the women in Egypt, and other parts of the Ottoman Empire, endeavour to make their apparel as rich as poſſible, becauſe upon the death of the huſband, if there are any children, the law allows the widow nothing more than her cloaths, jewels, and other equipage, unleſs particular donations have been made her; ſo that they are frequently ſold to maintain the poor woman after her huſband's deceaſe.

falling

falling down the river in the night-time, they ſtop in the morning at a place they think moſt proper for the bees to fly abroad, and collect their wax and honey. When night comes on, and the bees are returned to the hives, they proceed on their voyage, caſting anchor again in the morning, and reſting all day, as before. By this means, it is ſaid, they arrive at Cairo in ſix weeks or two months, where they are ſure of finding a good market for the cargo collected by their induſtrious little animals.

The method of hatching chickens in ovens is another curioſity for which Egypt is famous, and may be looked upon as an art peculiar to that country; nay, ſome pretend that only the people of one village are maſters of the buſineſs, who, at the proper ſeaſon of the year, diſperſe themſelves all over Egypt for employment, there being ſcarce a town but what is provided with ovens for this purpoſe. The ſeaſon for producing fowls after this manner, is from January to April, while the weather is temperate, for at other times the heat is too violent. The ovens are built under ground in two oppoſite rows, with a gallery or paſſage between them; and they are raiſed one above another, with holes at the top, as there are likewiſe in the paſſage, which they open or ſtop as they would have the heat diminiſhed or augmented. The fuel they uſe to heat theſe ovens is dung and chopped ſtraw, which make a ſmothering fire, the ſmoke

whereof is very offenſive. They continue to heat them gently for eight or ten days together, and then bring the eggs from the lower cells, where they had lain in heaps, and ſpread them in the upper apartments, ſo as only to cover the floor, and not lie one upon another. The buſineſs is now to turn them every day, and keep a moderate fire in a channel that runs along near the mouth of the ovens; and indeed the art conſiſts chiefly in giving the ovens a proper degree of heat, neither too much nor too little, for in either caſe the labour would not ſucceed. Their general rule is, that the eggs be never made hotter than a man can bear them to be applied to his eyelid. Thus with good management they begin to hatch in about three weeks, at which time it muſt needs be entertaining to take a view of theſe places, and to obſerve ſome of the chickens juſt putting forth their heads, others half out of the ſhell, and others quite delivered from their confinement.

Thunder, it is ſaid, ſometimes occaſions great numbers of eggs to miſcarry: and, at the beſt, it is obſerved, that many of the chickens want a claw, or have ſome defect or other, which, perhaps, they would not have had if they had been hatched in the natural way. The maſter of the ovens, according to Mr. Greaves, has one third of the eggs for his pains and charges, out of which he is to make good to the owners any of their number that may happen to be broke or miſ-

carry.

carry. The ſame gentleman tells us, that the fire in the upper ovens, when the eggs are placed in the lower, is thus proportioned: the firſt day the greateſt fire, the ſecond leſs than the firſt, the third day leſs, the fourth day more than the third, the fifth day leſs, the ſixth day more than the fifth, the ſeventh day leſs, the eighth day more, the ninth no fire at all, the tenth a little fire in the morning; the eleventh they cloſe all the holes with flax. &c. making no more fire, for if they ſhould the eggs would break. In this manner ſeven or eight thouſand chickens are hatched in a ſhort time; but ſome nice people pretend to diſtinguiſh one of theſe by the taſte, from another hatched by a hen, as if the latter were more delicious: though we are apt to think this is nothing but imagination. It has been doubted whether this method of hatching chickens was practicable in any country beſides Egypt, the nature of the climate being ſuppoſed particularly favourable to that deſign; but the ſame experiment has been made in Italy, and other parts of Europe.

The manner of preparing Sal Ammoniacum, or Sal Armoniac, as we commonly call it, is a curioſity which the Egyptians have kept a ſecret from the Europeans till within theſe forty or fifty years, it being firſt diſcovered by father Sicard, who has deſcribed the whole proceſs. It is not well known at preſent what the Sal Ammoniac or Cyreniac of the antients was; but it is generally imagi-

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ned to have been generated in the ſands from the urine of camels or other animals, which uſed to travel with the pilgrims that viſited the temple of Jupiter Ammon in the Libyan deſart. Dr. Hill, however, explodes this opinion, as having no foundation in any thing the antients have ſaid about it; and he endeavours to ſhew, that it was a ſtriated foſſil ſalt, which he ſays is frequent in the German cabinets; and that Dr. Pococke brought a piece of it to England, now in the collection of Mr. Baker. The preſent method of preparing it in Egypt is as follows.

The matter of this factitious ſalt is ſoot, cauſed by burning the dung of cows, camels, or other animals; the hotter it is, the better; for which reaſon that of pigeons is reckoned preferable to all others, though that of camels is much eſteemed. Now in Egypt the dung of animals mixed with chopped ſtraw, made into cakes and dried, is the common fuel of the country; and theſe turfs, being impregnated with alcaline urinous ſalts, communicate to the ſoot certain properties which it could not be expected to receive from the ſmoke of wood or coal, and yet are abſolutely neceſſary for the production of Sal Ammoniac. With this ſoot, to which ſome ſay they add a little ſea-ſalt, and the urine of cattle, they fill large round bottles within an inch of the neck, which is about two fingers in height. Theſe bottles are caſed over with a fat earth, or earth and huſks of flax chopped

ped and mixed together, to the thickneſs of a quarter of an inch; and when this coat is dried in the ſun, they lay on another as thick again as the former, and dry it in the ſame manner. Each bottle contains about forty pounds of ſoot, which, if it be of the beſt ſort, yields ſix pounds of Sal Ammoniac at the end of the operation. Theſe glaſs veſſels, being filled as above, are placed in a thick bed of aſhes, over furnaces built like our common ovens, except that their vaults open with four clifts in a row lengthwiſe, each of which contains four bottles, ſo fixed that nothing but the necks appear, which ſome ſay are left open, but others, that they are luted with wet cotton. In this ſtate they are kept, with a conſtant fire under them, for three days and nights ſucceſſively, during which time, the acid and alcaline ſalts riſe up to the necks of the bottles, where they unite and coagulate. On the third day, the operator makes a little hole in each bottle juſt below the neck, to ſee if the matter be baked enough, and if there be nothing more to be ſublimed; and after he has made his obſervations, he ſtops it carefully with earth, opening it again when he finds occaſion. At laſt, when the work is brought to the requiſite perfection, he puts out the fire, breaks the bottles, ſhakes off the aſhes from the bottom, and takes away the round whitiſh maſſes adhering to the necks, which is what they call Sal Ammoniac, and in ſuch cakes it is ſent to Europe. Every great laboratory conſiſts of eight furnaces, diſ-

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poſed in two rooms, ſo that it employs at once a hundred and twenty-eight bottles. In two towns of the Delta, about a league from Manſoura there are twenty-five great laboratories, and ſome ſmall ones, which make every year fifteen hundred or two thouſand quintals of this ſalt; and it is ſaid there are not above three more in Egypt, one of which is in the city of Cairo.

By this account we find, that our modern Sal Ammoniac is a factitious ſubſtance, a chemical preparation; and, whatever may have been imagined about it, it certainly never was, nor ever can be found truly native. We are told indeed, of ſome that has been made by a ſort of natural chemiſtry in the mouths and opening of the burning mountains; which does not ſeem improbable, as it is always an effect of ſublimation by fire, and has, in a great meaſure, its origin from ſoot; but the ſubſtance found there, naturally ſublimed, when brought to the trial, never proves to be the true Sal Ammoniac, either of the antient or modern kind, but uſually affords cryſtals the ſame with thoſe of common ſalt, and ſeems no other than ſea-ſalt, half mixed with ſoot by an irregular ſublimation. As to its being made of ſoot, Dr. James thinks it ſcarce credible, that ſo prodigious a quantity of ſoot as to produce fifteen hundred or two thouſand quintals a year, that is, ſo many hundred weight, could be furniſhed in Egypt, which is a warm country, and where they only uſe fires in their kitchens

kitchens and bagnios; and therefore he concludes, that the Egyptians, who make Sal Ammoniac, uſe other ingredients beſides ſoot, which they have the addreſs to keep a ſecret. This is certain, according to the Doctor, that very good Sal Ammoniac may be made without any ſoot at all, as was done in the works carried on at Newcaſtle not many years ago. Their method was this: to one gallon of bittern, that is, the liquor which drains from common ſalt whilſt making, they put three gallons of urine, letting them ſtand together forty-eight hours to effervеſce and ſubſide. They then drew off the clear liquor into leaden veſſels, where being evaporated and cryſtallized, a good Sal Ammoniac was produced from the cryſtals by ſublimation. The Doctor adds, that Sal Ammoniac is not employed ſo much in medicine at it deſerves to be; for, as it is abſolutely a neutral ſalt, it is extremely penetrating and reſolvent, uſed either externally or internally, and is a noble deobſtruent and cooler, where ſuch medicines are required.

SECT.

SECT. IV.

Particular Deſcriptions of the moſt remarkable public Buildings, and other ſingular Productions of Art in Egypt.

MOST of the houſes in Egypt, as in the reſt of the Turkiſh dominions, have but an indifferent appearance. The houſes of common people are moſtly built of clay, or bricks dried in the ſun, and are two ſtories high: but thoſe of the richer ſort are built of free ſtone, to a certain height, above which is a kind of cage work, ſometimes filled up with unburnt brick. Moſt of the houſes in Cairo have flat terraſſed roofs, where the inhabitants take the air in ſummer, which is very refreſhing in the evening; and thoſe of the richer people have a baluſtrade round them, with abundance of fine carving, gilding, and other decorations.

The beſt houſes in Cairo are built round a court or ſquare, and, notwithſtanding the meanneſs of their appearance, are elegantly furniſhed and adorned within. Over their halls, which are generally paved with marble, there are handſome cupola's, ſometimes open at top to let in air; gold and azure gliſten in their principal apartments, the Sofa's are furniſhed with rich velvet cuſhions, and the floors covered

covered with the fineſt carpets, which are one of the chief manufactures of the city. The houſe ſaid to have been built by a ſultan of Egypt towards the end of the thirteenth century is very magnificent. The entrance to the grand apartment is by a fine old door, ſomewhat in the gothic taſte, but chiefly remarkable for two pillars on each ſide of it, which appear like two links of a chain hanging down from the capital, though they are cut out of one ſtone. The grand ſalon is in the form of a Greek croſs, with a cupola in the middle of it, and is beautifully wainſcotted ten feet high from the floor. To the depth of two feet from the top it is covered with Arabic inſcriptions; and underneath them are works of mother of pearl and fine marbles, in the figure of ſmall arches; below which it is all done in pannels, with borders of Moſaic work running round them, compoſed of pearl, glaſs, and ſuch-like materials.

The caſtle of Cairo, ſuppoſed to have been built by Saladin, is ſituated on a rocky hill, and looks like another city, being a mile and a half in circumference, and ſurrounded by thick and lofty walls, flanked with ſtately towers, after the antient manner of fortification. On the weſt ſide of the caſtle are ſome very grand apartments, which diſplay the magnificence of the Mamaluke ſultans, who reſided there before Egypt was conquered by the Turks, and which have ſince been inhabited by the Baſhaws. Some of them are

covered with domes, and adorned with Moſaic pictures; and even the doors are inlaid with mother of pearl, ebony, cryſtal, and other curious materials: but this part of the caſtle is now taken up by a great number of artificers who are employed by the government, chiefly in weaving, embroidering, and preparing the hangings and coverings that are annually ſent to the temple at Mecca.

On the higheſt ground in the caſtle there is a ſpacious ſalon, commonly called Joſeph's-hall, which is now all open, except on the ſouth ſide, and is ſupported by abundance of large columns of red granite, ſome of which have plain capitals, and others are good Corinthian. Round each pillar is engraven an Arabic ſentence, and above them runs a ſort of wooden frize, filled with inſcriptions in the ſame language. Thoſe who have viewed this ſtructure, queſtion whether it was ever finiſhed.

The apartments of the Baſhaw or Viceroy, are now in a large court near the middle of the caſtle, and alſo the great Divan *, wherein are to be ſeen ſeveral leathern ſhields, each of them almoſt an inch thick, with a javelin ſticking in them, wherewith they were

* This name is given to a council-chamber, or court wherein juſtice is adminiſtered, in the Eaſtern nations, particularly among the Turks. The word is alſo uſed for a hall in the private houſes of the orientals.

pierced

pierced by one of the Sultans, and are preſerved as a monument of his ſtrength. The officers under the Baſhaw have alſo noble apartments in this citadel, which are kept in good repair, as well as the other buildings belonging to it, but the walls are running to decay.

There is an incredible number of moſques in Cairo, moſt of them poor little buildings, but ſome of them are magnificent fabrics, and deſerve the attention of a ſtranger. Amongſt theſe there is none more remarkable, either for the ſolidity of the ſtructure, or its majeſtic ſtatelineſs, than that of Sultan Haſſan, which ſtands at the foot of the hill whereon the caſtle is ſituated. It is built in the form of an oblong ſquare, and the entrance into it is inlaid with ſeveral ſorts of marble. It is very lofty, and is crowned with a very beautiful cornice that projects a great way, and is adorned with groteſque ſculptures: ſeveral other parts of it are likewiſe embelliſhed with carvings after the Turkiſh manner. The ſtrength of this place is ſuch, that it has often ſerved for a ſhelter to malecontents in times of public inſurrections; on which account the flight of ſteps that lead up to it is now broken down, the door walled up, and a garriſon of Janizaries quartered within its diſtrict.

In the neighbourhood of Cairo, as well as within the walls, there are many moſques that may be reckoned ſtately ſtructures. One called

Amrah, ſaid to have been formerly a chriſtian church, has near four hundred pillars, and thoſe of ſuch various kinds, that they ſeem to have been collected from ſeveral antient buildings. But the moſque which perhaps exceeds all the reſt in the beauty of the architecture, and the richneſs of its ornaments, is one called Kubbe-el-Azab, from the Azabs or Azaphs, a body of Turkiſh infantry, to whom it belongs. The edifice indeed is but ſmall, being about twenty yards ſquare, but it is covered with an elegant and majeſtic dome, raiſed on a baſe of ſixteen ſides, in each of which is a window. From the pavement to the height of eight feet, it is lined with pannels of the choiceſt marbles, amongſt which are ſeveral pieces of red and green porphyry. A frize that runs round it is filled with Arabic ſentences, cut in large gilt characters, and the borders of the pannels are likewiſe adorned with gilded ſculptures. The walls above the frize are alſo decorated with inſcriptions in the ſame language, and the whole cupola is gilt and painted in the moſt curious manner. Its ornaments are a great number of glaſs lamps, oſtriches eggs, and other things of that nature, very common in the Mahometan temples.

The Egyptian Chriſtians, called Cophti, or Cophts, have ſeveral churches in Cairo, where their patriarch reſides, though he takes his title from Alexandria, as well as that of the Greeks. The patriarchal church, however, is

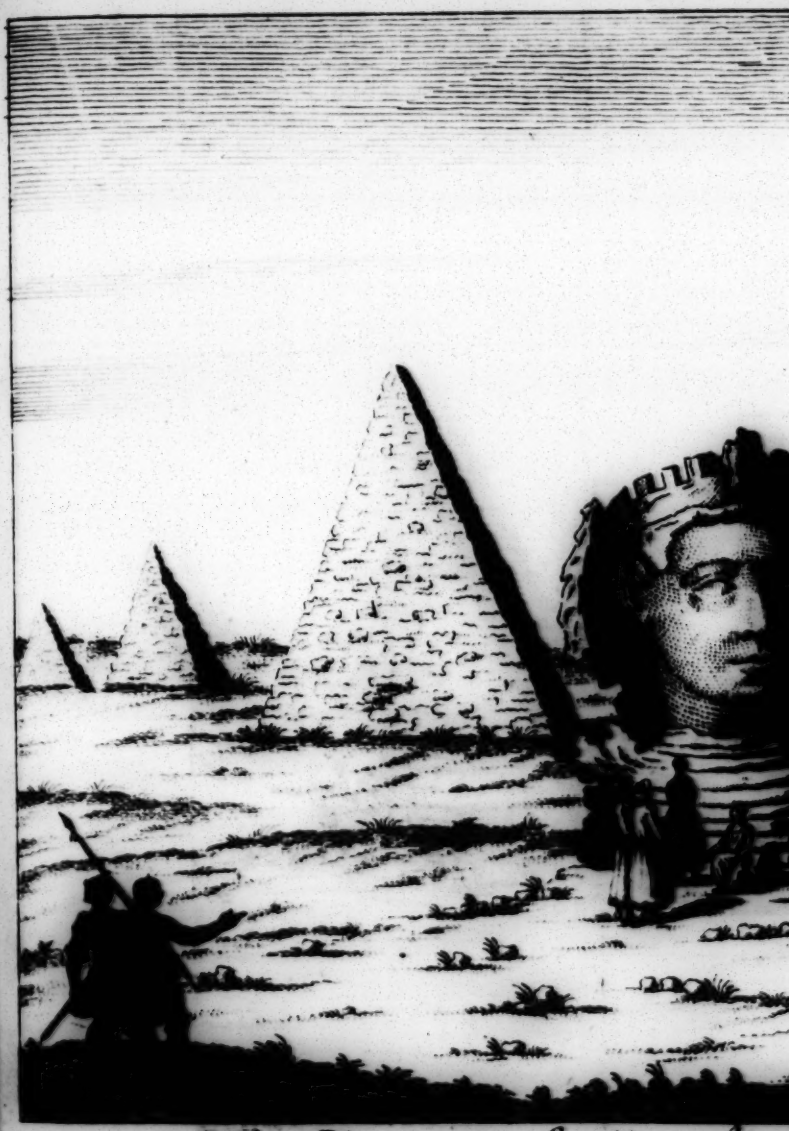
is properly that of St. Macarius, in Old Cairo, where he is elected and enthroned; and in that town these christians have ten or twelve churches, which generally consist of a nave and two isles, with galleries over them, and are adorned in the front with columns that support the roof. The chancel is separated from the body of the church by a partition, which is frequently embellished with sculptures, and inlaid with ivory, tortoise-shell, and other beautiful materials.

SECT. V.

Curious remains of Antiquity in Egypt; *remarkable Laws and Cuſtoms of the Inhabitants, with a ſummary View of the moſt extraordinary Revolutions among them.*

REMAINS *of* ANTIQUITY.

OF the many celebrated remains of antiquity ſtill found in Egypt, the moſt famous are the Egyptian pyramids; thoſe amazing monuments of the wealth and grandeur of the antient kings of that country, which are univerſally allowed to have been built at leaſt 1200 years before the chriſtian æra. Of theſe pyramids, there are three particularly remarkable, as they exceed the reſt both in magnitude and beauty; theſe three pyramids are ſituated on a ridge of rocky hills, on the borders of the Libyan deſart, about ten miles weſtward of a village called Gize, which is almoſt oppoſite to the city of Cairo, and is ſuppoſed to be the ſpot where the antient Memphis ſtood, though the ruins of that renowned city are ſo completely buried, or removed, that not the leaſt traces of them are now to be diſcerned. The hill on which they ſtand riſes with an eaſy aſcent from the plains of Egypt, to the height of an hundred



The Pyramids of Memphis &

his and the Sphinx

hundred feet or upwards; and the rock conſiſts of ſuch free ſtone as is uſed in the pyramids themſelves.

The largeſt of theſe pyramids, which has ſuffered leaſt by time and weather, is ſix hundred ninety three Engliſh feet ſquare at the baſis, and its perpendicular height is four hundred ninety-nine feet *; but if we take the height as the pyramid aſcends inclining, it is then ſix hundred ninety-three feet, which is exactly equal to the breadth of the baſis, ſo that the angles and baſis make an equilateral triangle. The whole area therefore of the baſe contains four hundred and eighty-two thouſand, two hundred and forty-nine ſquare feet, which is ſomething more than eleven acres of ground.

We aſcend the outſide of this pyramid by ſteps, which at the bottom are four feet in height and three in breadth, but the higher we go they gradually diminiſh; being ſo contrived, that a line ſtretched from any part of the baſis to the top would touch the edge of every ſtep, if the ſtones were not impaired by the air and rain; but at preſent they are ſo

* This meaſure is Mr. Greaves's, who obſerves, that notwithſtanding the boaſted height of this pyramid, the ſpire of St. Paul's church in London, before it was burnt, exceeded it, being, according to Mr. Camden, five hundred and thirty-four feet perpendicular from the ground.

waſhed

washed and mouldered away, that they cannot conveniently be ascended, except on the south side, or at the north-east angle. The breadth and depth of every step is one entire stone, several of them thirty feet in length; and the number of steps, according to Mr. Greaves, is two hundred and seven, but travellers differ in their computations. Whether these steps were intended to facilitate the ascent to the top, or were designed to be filled with these prismatical stones, so as to make each side of the pyramid smooth and upon a plane, we shall not determine, but Dr. Shaw gives some good reasons for the latter opinion.

The top of this pyramid does not end in a point, as it appears to those who view it from below, but in a little flat or square, consisting of nine stones, besides two that are wanting at the angles. Each side of the platform is about sixteen feet, so that a considerable number of people may stand upon it, from whence there is one of the most beautiful prospects that can be imagined. It has been reported by many travellers, that a man standing on the top cannot shoot an arrow beyond the bottom of the pyramid, but that it will fall on some part of the structure; whereas it is certain that a strong arm and a good bow will send an arrow to a much greater distance. As to the story of these pyramids casting no shadows, it is contrary both to reason and experience; for though at noon they cast no shadow in the summer, and for almost three parts of the

the year, yet in winter at noon, and morning and evening all the year round, they certainly caſt a ſhadow proportionable to their bigneſs: and it is obſervable, that Thales took the height of theſe pyramids by their ſhadows upwards of two thouſand years ago, as we learn from Pliny and Laertius.

On the north ſide of the large pyramid, ſixteen ſteps from the bottom, there is a ſquare narrow paſſage, leading downwards into the body of the ſtructure. This entrance is about three feet high, and as many wide, and its length ninety-two feet and a half. Thoſe who have been curious enough to creep through this narrow paſſage inform us, that at the end of it there is a wider place, about ninety feet long and of unequal breadth, ſuppoſed to have been dug for the diſcovery of ſome hidden treaſure, but not remarkable for any thing except the large bats by which it is inhabited. On the left hand they enter another paſſage, five feet high and a hundred and ten in length, through which they aſcend to two galleries, one of them running off horizontally, and the other riſing upwards in the ſame direction with the paſſage. The horizontal gallery leads to an arched vault or chamber, about ſeventeen feet long and fifteen broad, which ſmells like a grave; and is half full of rubbiſh. The walls are entire, and plaiſtered over with lime; and the roof conſiſts of large ſmooth ſtones, laid ſloping, ſo as to meet at top in an angle. Near the entrance into this gallery there is a circular

circular well, three feet in diameter, which is lined with white marble; and little holes are left in the ſides, oppoſite to one another, wherein a perſon that deſcends into it muſt fix his hands and feet; which ſort of contrivance is ſeen in many of the wells and ciſterns of Egypt.

The aſcending gallery, whether we regard the materials or workmanſhip, is not inferior to the moſt magnificent buildings. It is paved and lined with white poliſhed marble, cut in vaſt ſquares, and ſo curiouſly put together that the joints are ſcarce diſcernible. The height of this gallery is twenty-ſix feet, its breadth ſix, and on each ſide of it there are benches of poliſhed ſtone.

From hence through a ſquare hole they paſs into ſome little chambers or cloſets lined with marble, and then into a noble hall ſituated in the centre of the pyramid, being equally diſtant from all the ſides, but rather nearer the baſis than the top. The floor, ſides, and roof of this room are all of Thebaic marble; and the ſtones are of a prodigious ſize, eſpecially thoſe that form the roof, lying acroſs from one ſide to the other like ſo many huge beams, and ſupporting an enormous weight. As to its dimenſions, its length is thirty-four feet, its breadth ſeventeen, and its height near twenty.

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In this ſtately hall ſtands a tomb, placed exactly north and ſouth*, and equally diſtant from all ſides of the room except the eaſt, from whence it is as far again as from the weſt. It conſiſts of one piece of marble hollowed, without any lid or covering, and being ſtruck it ſounds like a bell. The general opinion is, that it is the tomb of Cheops or Chemmis, king of Egypt, the ſuppoſed founder of this pyramid. There is no appearance of any corpſe having ever been laid in it, and probably there never was; for Diodorus, who wrote above ſixteen hundred years ago, informs us, that Chemmis, and Cephren, the founder of the next pyramid, notwithſtanding they intended theſe ſtructures for their ſepulchres, were not buried in them, the people being ſo exaſperated by the hardſhips they had undergone in erecting them, and by their repeated cruelties and oppreſſions, that they threatened to tear their dead bodies in pieces; upon which they commanded their friends to bury

* It has been obſerved of the pyramid we are ſpeaking of, that the ſides of it ſtand exactly facing the four cardinal points, eaſt, weſt, north, and ſouth, and conſequently mark the true meridian of the place; which preciſe poſition could not well have been owing to chance, but was in all probability the effect of art and deſign; and that it really was ſo, ſeems confirmed by the poſition of the tomb within: ſo that this antient ſtructure is a ſtrong and laſting proof of the early progreſs of the Egyptians in the ſcience of aſtronomy.

them

them in ſome obſcure place in a private manner.

This tomb is of the ſame marble with which the whole room is lined, namely, a ſort that is ſtreaked and variegated with black, red, and white ſpots, which ſome call Thebaic, but others ſuppoſe it to be a kind of porphyry. Its figure is like an altar, and the marble ſmooth and plain, without any ſculpture or other ornament. If we meaſure its outward ſuperficies, it is ſeven feet three inches and a half in length, three feet and almoſt four inches in depth, and much the ſame in breadth; but the cavity within is little more than ſix feet long, two feet deep, and as many broad. From theſe dimenſions, as well as from the embalmed bodies in Egypt, it has been juſtly obſerved by Mr. Greaves and others, that there is no decay in nature, but that the men of this age are of the ſame ſtature they were three thouſand years ago. How this tomb was brought into this place where it now ſtands is difficult to conceive, it being impoſſible it ſhould come through the narrow paſſages above deſcribed; which makes it generally ſuppoſed to have been raiſed up thither, from without, before the room was finiſhed, and the roof cloſed up: but perhaps there is ſome other way to the room within the ſtructure, which has not yet been diſcovered.

We have nothing to add concerning this tomb, but that there is a hole dug underneath it,

it, and a large ſtone in the pavement near it removed, which was probably done in hopes of finding ſome treaſure; the burying of money in ſepulchres being not only a practice of the antients, but continues to this day in the Eaſt Indies.

Travellers take notice of a remarkable eccho, or rather of a long continued ſound, which is heard on diſcharging a muſket at the entrance into the firſt pyramid. This is mentioned by Plutarch; but ſurprizing as it is, the effect may be accounted for, as Mr. Greaves obſerves, by conſidering, that the ſound being ſhut in, and carried along thoſe ſmooth narrow paſſages already deſcribed, to the middle of the pyramid, finding no way out reflects upon itſelf, cauſing a circulation of the air and a confuſed noiſe, which gradually leſſens and dies away as the motion ceaſes.

To the ſouthward of the firſt pyramid, at a very little diſtance, ſtands the ſecond, ſuppoſed to have been built by Cephren the brother of Cheops, and deſigned for a ſepulchre, as well as the former. The ſtones of this pyramid are white, but much leſs than thoſe of the firſt; nor do the ſides riſe by degrees or ſteps. like the other, but are ſmooth and even; and the whole ſtructure, except on the ſouth, ſeems not to have received any conſiderable damage. The dimenſions of it, both as to height and breadth, are much the ſame as thoſe of the pyramid already deſcribed, but its aſcent is

ſomewhat ſteeper. At ſome diſtance from the baſis, on the north ſide of this pyramid, there is a hole, which probably was made in order to find a paſſage to the inſide of it; but none has as yet been diſcovered, nor is it known whether there be any rooms or apartments within, though it is reaſonable to ſuppoſe there are, as well as in the former.

On the north and weſt ſides of this pyramid there is a foſſe or trench, about ninety feet in breadth and thirty in depth, along which are a great number of cells or apartments hewn out of the ſolid rock, deſigned, as is ſuppoſed, for lodgings for the Egyptian prieſts. They are entered through ſuch ſquare openings as that deſcribed in the firſt pyramid, and many of the chambers have a communication with others behind them, which are now filled with rubbiſh.

About a furlong from the ſecond pyramid ſtands the third, upon ſuch an eminence or riſing of the rock, that it appears equal to the former at a diſtance, though it is much leſs both in height and breadth. Some antient writers affirm, that this pyramid was built, or at leaſt caſed, with black Ethiopic marble; but whatever it may have been formerly, at preſent the whole ſtructure ſeems to be of a clear whitiſh ſtone, ſomewhat better and brighter than either of the former pyramids. Each ſide of its baſe is about three hundred feet, and its height is much the ſame; and all round it are

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to be ſeen the remains of the granite with which it was adorned, the greateſt part whereof has been carried away, though ſome few pieces continue in their places. Mycerinus, the ſon of Cheops, is ſaid to have been the founder of this pyramid, and Diodorus ſays, his name was engraved on the north ſide of it, but nothing of that kind is to be ſeen at preſent.

The deſcription of theſe three pyramids may ſerve to give the reader an idea of thoſe that are to be ſeen in other parts of Egypt, which are all much inferior in magnitude to thoſe already deſcribed, except one, whoſe dimenſions and ſtructure are pretty near the ſame with the firſt and largeſt pyramid. It has ſteps on the outſide, but more decayed than the former; and on the north ſide it has alſo an entrance, but blocked up, ſo that there is no getting in to ſee the apartments. It is proper to obſerve, however, that the other pyramids, which are chiefly diſperſed about the Libyan deſart, are not all of the ſame form, ſome being quadrilateral, others round and terminating in a point like a ſugar-loaf; ſome riſing with a greater, and others with a leſſer inclination.

Notwithſtanding what we have ſaid of Cheops, Cephren, and Mycerinus, it is a ſubject of much diſpute, who were the builders of theſe wonderful ſtructures. Some pretend they were erected by the Patriarch Joſeph for granaries, to lay up the corn of the ſeven plentiful

years againſt the enſuing famine; but moſt of them being ſolid piles of ſtone, with very few cavities within them, and their figure the moſt improper of any for that purpoſe, the conjecture at firſt ſight appears groundleſs and abſurd. Others ſuppoſe them to have been erected by the Iſraelites, during their heavy bondage in Egypt under the tyranny of the Pharaohs; and this opinion is ſupported by the authority of Joſephus, who ſays they were employed in cutting canals, building walls, throwing up banks, and, among other oppreſſions, in raiſing the vaſt pyramids in queſtion. According to the ſcriptures, indeed, the ſlaviſh employment of the Iſraelites was making of bricks, whereas all theſe pyramids are of ſtone; but though they might be thus employed a little before the time of their deliverance, it does not follow that they never were employed in any other works; and therefore the ſcripture account does by no means overthrow the hypotheſis under conſideration. We may add to this, that no time ſeems more likely for the Egyptian Kings to undertake ſuch amazing ſtructures, than when they had ſo many hundred thouſand ſlaves in their dominions, whom it was political to keep in action, to divert them from mutiny and rebellion.

After all, it muſt be confeſſed, that there is little agreement either among the natives of Egypt, or antient hiſtorians, with reſpect to the founders of theſe pyramids; and as this is a matter of uncertainty, it would be in vain to endea-

endeavour to determine the time when they were erected. However, if we do not allow them to be ſo antient as the time of the Iſraelites being in Egypt, which yet does not appear improbable, we muſt grant them to be about three thouſand years old; for Herodotus, who lived two thouſand two hundred years ago, could find little ſatisfaction in his enquiries concerning them; and Diodorus, who lived before the birth of Chriſt, ſuppoſes the great pyramid to have been built at leaſt a thouſand years before his time.

Another thing diſputed is the end for which theſe pyramids were built; though the generality of writers on this ſubject are of opinion that they were intended for ſepulchral monuments. Diodorus confirms this hypotheſis, and Strabo ſuppoſes all thoſe near Memphis to be royal ſepulchres. And yet ſome think it not improbable, from the ſumptuous apartments, galleries, benches, &c. that they were deſigned for other uſes than mere ſepulchral monuments, which are commonly plain arched vaults; perhaps for temples, as Dr. Shaw imagines; for as the whole Egyptian theology was couched in myſterious emblems and figures, no places could be better contrived for the Adyta *, which had ſo great a ſhare in their myſteries.

* By this word is meant a ſecret or retired place in the Pagan temples, where oracles were given, and into which none but the prieſts were admitted.

Beſides, thoſe cheſts which have been ſuppoſed to have been the coffins wherein the bodies were depoſited, chiefly becauſe they are about ſix feet long, the length of a man, may rather have been deſigned to incloſe ſome of the prieſtly veſtments, or ſacred utenſils, or ſome of their idols, &c. eſpecially conſidering they are of an oblong ſquare figure, and not narrower at one end, which was the common form of coffins; and then the depth and breadth of theſe, which is about three feet, are out of all proportion. However, there is another reaſon to think theſe huge ſtructures were deſigned for ſepulchres, ariſing from the theology of the Egyptians, who not only believed the reſurrection, but that as long as the body endured, the ſoul continued with it. Hence it was that they took ſo much care to embalm their dead, in order to preſerve them from corruption, that ſo the ſouls of the deceaſed might long remain about their reſpective bodies, not to animate or quicken them, but only as attendants or guardians, unwilling to leave their former habitations: and upon the ſame account they depoſited them in the moſt durable buildings, endeavouring thereby, as far as they were able, to render them eternal.

The reaſon why the Egyptians built theſe monuments in a pyramidal figure, ſeems to have been, according to Mr. Greaves, becauſe this is the moſt permanent form of ſtructure, being neither over-preſſed by its own weight, nor ſo ſubject to the ſinking in of rain as other build-

buildings. Add to this, that they might thereby intend to repreſent their deities, it being cuſtomary among the heathen to expreſs the objects of their worſhip either by columns faſhioned like cones, or by quadrilateral obeliſks, which are a leſſer ſort of pyramids, and of which ſeveral are ſtill ſtanding entire in divers parts of Egypt.

How theſe wonderful ſtructures were built, and by what means the ſtones, eſpecially thoſe vaſt ones of the firſt pyramid, were raiſed to ſuch a height, has likewiſe been matter of much ſpeculation. Herodotus, whoſe expreſſions are a little obſcure, ſuppoſes, that when they had laid the firſt range, they raiſed others thither from the ground, which formed the ſecond row; and by an engine placed upon that, they drew up the ſtones that compoſed the third; there being as many engines as layers of ſtone, or elſe one that might be occaſionally removed. Mr. Greaves imagines, that they firſt built a large tower, the height of the intended pyramid, to the ſides whereof they applied the reſt of the ſtructure, piece after piece, like ſo many buttreſſes, which leſſened in height till they came to the loweſt degree. Some have conjectured, that they took the advantage of building round a hill; if ſo, theſe pyramids were built with much leſs labour and expence than is generally imagined. In ſhort, in a matter of ſuch uncertainty, every one muſt be left to his own conjectures; but as to thoſe already mentioned, they appear liable to various objections: nor does there ſeem any reaſon for

endeavouring to leſſon the difficulty of erecting theſe prodigious ſtructures, ſince the wealth of the Egyptian monarchs, and the number of hands employed, were undoubtedly equal to the undertaking, though confeſſedly great and wonderful *.

At a ſmall diſtance from the ſecond pyramid ſtands a monſtrous figure, uſually called a Sphinx, which the antients repreſented as having the head and breaſts of a woman, the wings of a bird, the claws of a lion, and the body like a dog. This figure the Egyptians uſed in their hieroglyphics to repreſent a harlot, intimating the danger of being captivated with the beauty of a faithleſs woman, whom the fond lover in the end finds as cruel and rapacious as a lion. Of this Sphinx, however, there is little more to be diſcerned at preſent than from the ſhoulders upwards, being a huge

* Diodorus tells us, that the number of men employed in building the firſt or greateſt pyramid was 360,000, large bodies of them relieving one another at ſtated periods, and alternately taking their turns of reſt and labour. It is agreed that twenty years were ſpent from the beginning to the finiſhing of the work; and Herodotus adds, that in his time there was an inſcription on the pyramid, declaring how much had been expended only in radiſhes, onions, and garlick for the workmen, being no leſs than ſixteen hundred talents of ſilver, or about 460,000 l. ſterling; from whence we may judge to what waſt ſums the whole expence muſt have amounted.

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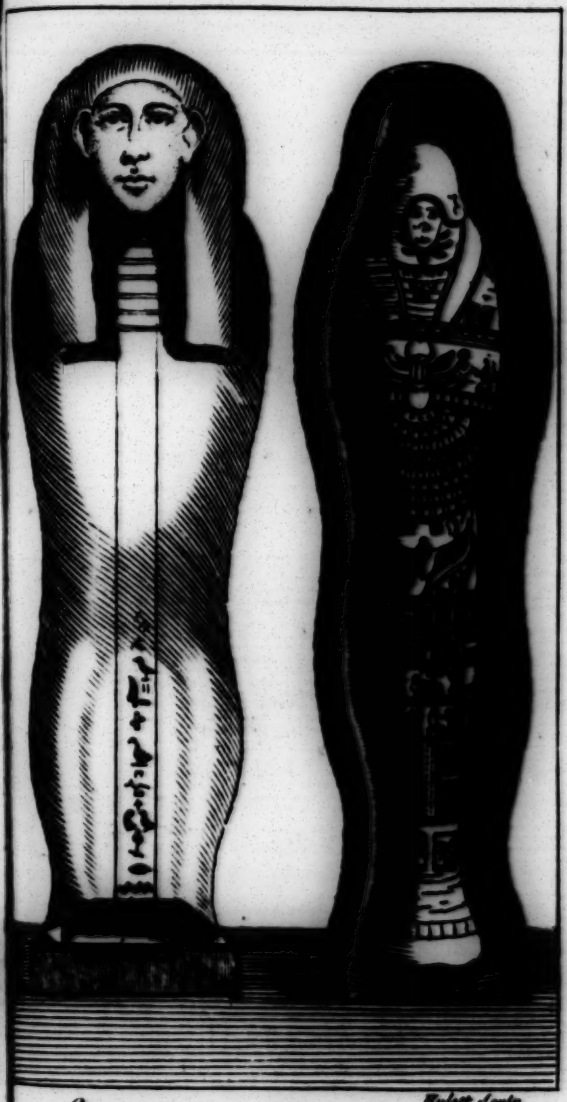
buſt of a woman, all cut out of the ſolid rock, except the upper part of the head, which ſeems to have been a ſeparate ſtone. Its height is almoſt thirty feet, and the breadth is much the ſame at the lower part of the neck or beginning of the breaſt. It is fifteen feet from the ear to the chin, and we may ſuppoſe the other parts of the figure are proportionable; but the ſand is ſo accumulated round it, that one can but juſt diſcover the top of the back, wherein there is a hole about five feet long, ſeventy-five feet, according to Dr. Pococke, from the hinder part of the neck, and thirty from the tail. Beſides this hole in the back, there is another on the top of the head, into which a full-grown perſon may deſcend, and from whence it is ſuppoſed the artful prieſts uſed to deliver their oracles. Some travellers have alſo imagined, that there is a ſubterraneous communication from the Sphinx to the largeſt pyramid; but this ſeems to be mere conjecture. The rock is dug away all round the Sphinx to a conſiderable diſtance, which was undoubtedly employed in building the pyramids. Pliny makes mention of this Sphinx, and tells us it was thought to be the ſepulchre of King Amaſis.

Nine or ten miles ſouth of the three great pyramids are the famous Catacombs or Mummy-Pits, of which travellers give us the following deſcription. Thoſe who have the curioſity to viſit theſe pits, where the Mummies or embalmed bodies are depoſited, are let down by

by ropes, the holes in the ſides made to deſcend by, as in the well of the pyramid above-mentioned, being ſo worn away, that it is dangerous, if not impracticable, to go down in that manner. Some of the pits are twenty or twenty-five, others thirty feet deep, and at the bottom there are horizontal paſſages which lead into ſquare rooms, in which are found the remains of embalmed bodies, ſwathes ſcattered up and down, and ſometimes cheſts and coffins ſtanding upright and entire, which are made of ſycamore, or Pharaoh's fig-tree, as has been already obſerved, and have continued ſound in theſe ſubterraneous apartments above three thouſand years, notwithſtanding the wood is ſpongy and porous to appearance. The top of the coffin is commonly ſhaped like a head, with a face painted upon it reſembling a woman; the reſt is one continued trunk, and the bottom is broad and flat, upon which it ſtands upright in the repoſitory. Moſt of theſe coffins are adorned with hieroglyphics, and ſome of them are finely gilt and painted, either with the figure of ſome tutelar deity, or that of the deceaſed. Little images of various kinds, ſome of copper, others of ſtone, are ſometimes ranged round the pedeſtals of the coffins, as if deſigned for ſo many guardian genii and attendants.

The bodies, upon opening the coffins, appear wrapped up in a linen ſhroud, upon which are faſtened ſeveral ſcrolls, likewiſe of linen, painted with hierogylphic characters. Theſe ſcrolls commonly run down the belly and ſides, or



Hulett Sculp

Egyptian Mummies.

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or elſe are fixed on the knees and legs. On a kind of head-piece of linen, which covers the face, the countenance of the perſon is repreſented in gold; and the feet have alſo a covering of the ſame, ſhaped like a ſlipper, and painted with hieroglyphics. The whole body is ſwathed with fillets, or narrow bandages of linen, which are wrapped round in ſuch a curious manner, with ſo many windings, and ſo often one upon another, that it is ſuppoſed a corpſe has ſeldom leſs than a thouſand ells of filleting. Thoſe eſpecially about the head and face are laid on with wonderful neatneſs, inſomuch that the ſhape of the eyes, noſe, and mouth, are plainly perceived. The breaſt is alſo covered with folds of linen cut ſcollop-wiſe, richly gilt and painted; and ſometimes we ſee the figure of a woman with her arms extended, the wings of fowls, or other ornaments.

It is to be obſerved, that the Mummy-cheſts or coffins are not always of wood, ſome few being of ſtone; and of the wooden ones, ſome are made of boards, and others hollowed out of one piece of timber. There are alſo ſome bodies that have no other coffins than pieces of linen gummed or glued together, which yet are as durable as thoſe of wood or ſtone; and there are others which have no coffins at all, but are wrapped up in reeds or branches of palm. Theſe laſt, we may imagine, were the poorer ſort of people, whoſe families could not bear the expence of coffins; and it is probable

probable they were piled one upon another, whereas the coffins ſtood upright upon their pedeſtals.

Some travellers make mention of ſeveral ſquare boxes that are found in theſe catacombs, uſually painted with hieroglyphics, and having upon their lids the figure of a hawk, or dog, or other animal. One of theſe boxes, they ſay, was originally placed at the feet of each Mummy, and contained various little inſtruments and utenſils, denoting the trade or employment of the embalmed perſon. But moſt of theſe have been carried away, as well as the little images above-mentioned, which the people of Saccara ſell to the Europeans at an eaſy rate; for the Turks have little curioſity, and eſteem antiquities no farther than the value of the materials.

Amongſt theſe repoſitories of human bodies, there is one called the Pit of the Birds, about thirty feet deep, conſiſting of many handſome apartments, being the ſepulchre of birds and other animals worſhipped by the antient Egyptians, which they embalmed and wrapped up with the greateſt care, depoſiting them in earthen vaſes covered over and ſtopped cloſe with mortar. The form of theſe vaſes or urns is conical, and moſt of them contain an Ibis, a bird much reverenced by the Egyptians, as has been already obſerved, whereof the bill, bones, and the very feathers, are preſerved to admiration. Dogs and other animals have been

been found in larger vaſes, but at preſent they are rarely to be met with.

Perhaps it will not be diſagreeable to the reader, nor ſeem quite foreign to our purpoſe, if to this deſcription of the Mummy-pits we ſubjoin an account of the Egyptian manner of embalming human bodies, by which curious art ſeveral have been preſerved entire through ſuch a long ſucceſſion of ages. For what we know on this ſubject we are chiefly indebted to Herodotus and Diodorus, who inform us, that among the antient Egyptians the art of embalming, like other trades, was profeſſed by particular perſons; and when a corpſe was brought to them, they ſhewed the friends of the deceaſed ſeveral models or patterns made of wood, painted like an embalmed body, giving them alſo an account of the expence that would attend each manner of preparation; for it is to be obſerved, that they had three different ways of preparing a corpſe for burial, one of which was very expenſive, amounting to upwards of two hundred and fifty pounds ſterling, the ſecond to about a fourth part of that ſum, and the charge of the third was very little.

Theſe matters being previouſly agreed on, the embalmers took the body, and having drawn out the brains through the noſtrils with a crooked iron inſtrument, they injected into the vacancy a certain compoſition, which at this day, upon opening the head of a Mum-

my, appears of the consistence, colour, and smell of pitch, but sometimes more fragrant. Then the Scribe or Secretary, as he was called, made a mark on the belly to determine the length of the incision, which was made with a sharp stone; and the intestines being drawn out, except the heart and kidneys, were washed with palm-wine and aromatic odours. The belly was then filled with pounded myrrh, cassia, and other odoriferous drugs; and the incision being sewed up, the body was carefully anointed with oil of cedar for above thirty days, or else laid for more than twice that time in nitre *. Seventy days was the longest time, which being expired, the whole body was washed again, bound up in swathes of fine linen, and covered with gums, which the Egyptians used instead of glue. All this was done with such inimitable art, that the body was

* Dr. Grew, in his *Museum Regalis Societatis*, is of opinion that the Egyptians boiled their dead bodies in a large cauldron, with a certain kind of liquid balsam. His reason is, that in the Mummies preserved in the collection of the Royal Society, the balm has penetrated not only the fleshy parts, but even the very bones, so that they are all as black as if they had been burnt.

The Peruvians, it seems, had an effectual method of preserving the bodies of their deceased Yncas or Kings. Their main secret is supposed to have been the burying them in snow, and afterwards applying a certain bitumen, mentioned by Acosta, which kept them as entire as if they had been still alive.

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not in the leaſt disfigured, the hairs remained on the brows and eye-lids, and the perſon might even be known by his countenance. The corpſe was then delivered to the relations, and being incloſed in a coffin, was depoſited in a ſepulchre, or in ſuch catacombs as have been deſcribed. The Egyptians however did not always bury their dead immediately after they were embalmed, but ſometimes kept them in their houſes in magnificent apartments, having by this means the ſatisfaction of viewing the lineaments of their anceſtors, who died ſome ages before them; and according to Lucian, who pretends to have been an eye-witneſs of what he relates, they often brought the embalmed body of a friend as a gueſt to their feaſts and entertainments. Neceſſitous perſons, we are told, have ſometimes pawned the bodies of their parents or brothers for money, but Diodorus ſays, its was reckoned the greateſt reproach not to redeem them, and thoſe who neglected to do it were themſelves deprived of burial.

The method of embalming above deſcribed, was the moſt coſtly of any; but thoſe whoſe circumſtances would not admit of ſuch an expence, had recourſe to a more ordinary preparation. Without cutting the body open, they injected into it by a pipe a quantity of oil of cedar, laid it in nitre, and after a certain term they let out the oil by the fundament, which brought away with it the paunch and entrails. The third way of preſerving a corpſe was

only to cleanſe the belly by injected lotions, and ſalt the body for ſeventy days; and this was practiſed by the poorer ſort of people.

The pyramids and catacombs are perhaps the moſt remarkable curioſities of Egypt, and therefore we have been the more particular in deſcribing them; but there are ſeveral other noble remains of antiquity, which muſt not be paſſed over in ſilence. Near the ſouthern part of the lake Mœris, was ſituated the celebrated Labyrinth, a ſtructure which in the judgment of Herodotus, who ſaw it, ſurpaſſed the report of fame, and was more wonderful than the pyramids themſelves. This magnificent pile, the ſame hiſtorian informs us, was erected by twelve Egyptian Kings, at a time when the country was divided into ſo many different kingdoms, and, properly ſpeaking, conſiſted of twelve palaces, where the princes and magiſtracy of the whole nation uſed to aſſemble to feaſt and ſacrifice, and to deliberate about matters of ſtate and religion. It ſeems alſo to have been deſigned as a Pantheon, or univerſal temple of all the Egyptian deities, which were ſeparately worſhipped in the provinces.

This vaſt edifice had twelve halls, which were vaulted, and had an equal number of doors oppoſite to each other, ſix opening to the north, and ſix to the ſouth. The whole number of rooms in it was three thouſand, one half of them above ground, and as many below;

below; and the paſſages throughout the building were contrived to meet and croſs each other with ſo much intricacy, that a ſtranger was preſently bewildered amongſt them, and unable to find his way out without the aſſiſtance of a guide. Herodotus tells us, that he viewed all the upper rooms of this labyrinth, but was not permitted to ſee the ſubterraneous apartments, becauſe they contained the ſepulchres of the kings who built it, and of the ſacred crocodiles, which animal was the peculiar deity of Arſinoe, a neighbouring city *. This huge fabric is ſaid to have conſiſted entirely of ſtone, without any timber, being ſupported by a vaſt number of marble pillars, and the whole adorned with excellent ſculptures.

So great was the ſtrength of this ſurprizing ſtructure, that Pliny ſays, it was remaining in his days, after having ſtood three thouſand ſix hundred years; and even at preſent one may find ſufficient tokens of its antient grandeur. At a place called Caroon, which

* The ſuperſtition of the antient Egyptians is well known, who extravagantly worſhipped the crocodile, the bull, the wolf, the dog, the cat, the baboon, the hawk, the ibis, and many other animals; almoſt every province and city having their peculiar deities. Theſe animals were placed in their temples, maintained with great care and expence, and after their death were embalmed, and depoſited in tombs aſſigned them by the public.

is undoubtedly the ſpot where the labyrinth was erected, there are ſeveral heaps of ruins covered with ſand, abundance of ſtones ſcattered up and down, and proceeding farther we come to the remains of ſome ancient buildings, the largeſt of which, called the caſtle of Caroon, is about a hundred and ſixty feet long, and eighty broad, ſuppoſed to have been the ſquare pyramid which Strabo ſpeaks of at the end of the labyrinth.

There are ſome remnants of large marble pillars, which ſupported a very ruſtic portico, almoſt entirely deſtroyed; but through it we paſs into a fine ſpacious hall, and beyond it three others ſucceſſively, which are roofed with large tables of marble admirably joined together, and reaching acroſs from one wall to the other. From theſe halls there are openings into other rooms upon a level with them, and from thence there are ſtair-caſes to aſcend into thoſe that were above, and to deſcend into thoſe below; but moſt of the paſſages, as is reaſonable to ſuppoſe, are now choaked with ſand and rubbiſh. What remains of this ſtructure is about four and thirty feet high, and there is the appearance of a cornice running along it, though undoubtedly it was higher formerly. It ſeems to have been a fourth part of the inner building, which probably had four fronts, with twelve halls anſwering to them; and this is almoſt evident from the ruins ſpread all round it to a conſiderable diſtance.

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Proceeding up the Nile, we meet various remains of antiquity, particularly of the temples and ſepulchral monuments of the antient Thebes, though we muſt own the ſituation of many of the once famed cities of Egypt is now much diſputed. Near Aſſouan are to be ſeen the ruins of the antient Syene, ſituated juſt under the Tropic of Cancer. Between a hill and the river there is an old ſtructure, ſuppoſed to be that mentioned by Strabo, built over a well with two openings on the top, growing narrower upwards, for making aſtronomical obſervations. The very bed and iſlands of the Nile here are of red granite, formerly ſtiled Thebaic ſtone, and abundance of fragments of columns and other pieces of it are ſcattered about the country. In the iſland called Elephantine, over-againſt Syene, there are ſtill to be ſeen ſome remains of a temple of Cnupis, and before it a ſtatue eight feet high, ſitting with its arms acroſs, and holding in each hand a Lituus or trumpet.

Father Brothais, who went up the Nile till he came within two days journey of the cataracts, tells us, that he ſaw ſeveral pagan temples ſtill entire, together with very antient palaces filled with ſtatues and idols. In one place he reckoned ſeven obeliſks like thoſe at Rome, and about a hundred and twenty columns in one hall, inſcribed from top to bottom with hieroglyphic characters and figures of heathen deities. He likewiſe ſaw two ſta-

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tues of a man and a woman, at leaſt ſixteen yards high, though ſeated in chairs, the whole of white marble, and well proportioned; alſo two others of black marble, repreſenting women, with globes on their heads, and meaſuring two feet from one ſhoulder to the other. The ſame Father mentions two places where he met with antiquities, the one called Lozor, the other Candion, which laſt is a very old caſtle, ſuppoſed to have formerly been the reſidence of a King, according to a tradition of the country. In the avenues to it there are a great many Sphinxes ſtanding in a row, which fabulous monſter was once a famous deity among the Egyptians. They are twenty feet in length, and their diſtance from each other about two paces. On one ſide of an avenue he reckoned ſixty of them, and as many on the other ſide, and fifty-one in another avenue, all well proportioned. The gates of this caſtle are very high, covered with excellent ſtones, one of which our author meaſured, and found it to be twenty-ſix feet and a half in length, and of a proportionable thickneſs. There are above a million of figures in profile engraven on the walls and pillars of this ſtructure; but that which moſt pleaſed Father Brothais, was the ground, where the azure and other colours, which are like enamel, appear as freſh as if they had been laid on but a month before. There are temples, he ſays, ſo ſpacious that three thouſand people may ſtand upon the roof with eaſe; and in the caſtle above-mentioned

there

there is a pond whoſe water is bitter, but is remarkable for whitening linen.

Amongſt the curious remains of antiquity to be ſeen in Egypt, we muſt not forget thoſe of Alexandria, particularly Pompey's pillar, which is a hundred and fourteen feet high, and has a Corinthian capital. The ſhaft, which is nine feet in diameter, and ninety in height, is of one entire ſtone, and the baſe and pedeſtal of another. It ſtands on a foundation conſiſting of ſeveral pieces of ſtone and marble, ſome of which have been dug away, in expectation perhaps of finding ſome treaſure, but our lateſt travellers ſay that theſe defects in the foundation have been repaired.

The Catacombs of Alexandria are alſo taken notice of as a great curioſity, being ſeveral apartments cut out of the rock, on each ſide of an open gallery, wherein there are three rows of holes to depoſit the dead bodies. The King's palace, with its ſuburbs, which took up one fourth part of the city, incloſed, among other things, the Muſæum or Academy, the royal ſepulchres, and the tomb of Alexander; all which are now gone to decay, and the ſtones carried off to build other parts of the city. The moſt conſiderable building now remaining is the palace of Cleopatra, of which ſome ſtately galleries are ſtill ſtanding, together with a tower of white marble reſting on an arch or vault,

vault, wherein are to be ſeen ſeveral niches adorned with columns of marble.

The ciſterns, which were built under the houſes of Alexandria, to receive the waters of the Nile, brought by a canal from the Canopic branch, are many of them entire, and ſtill ſerve for the ſame purpoſe. The iſland of Pharos, on which ſtood the celebrated watch-tower or light-houſe of the ſame name, which was reckoned one of the wonders of the world, is now joined to the continent. This famous ſtructure had ſeveral ſtories raiſed one over another, adorned with columns, baluſtrades, and galleries of the fineſt marble and workmanſhip; to which, it is ſaid, the architect had faſtened looking-glaſſes, wherein one might ſee the ſhips ſailing on the ſea at a great diſtance. But inſtead of this noble fabric there is now an irregular caſtle, without ditches or out-works of any ſtrength, out of the midſt of which riſes a tower that ſerves for a light-houſe, but which hath nothing of the beauty and grandeur of the old one. This caſtle is ſituated at the entrance of the new port, and ſome pillars are diſcernible thereabouts at the bottom of the water, which perhaps are the remains of the ſuperb ſtructure above-mentioned.

Among other antiquities we alſo ſee two obeliſks, one of which is broken, part of it lying on the ground. The Patriarchal chair, in

in the church of the Coptic convent, is a thing generally ſhewn to ſtrangers; and the Greeks boaſt of their being poſſeſſed of the ſtone on which St. Catharine ſuffered martyrdom, with other curioſities of the ſame nature.

Alexandria was once equal to the beſt cities in the world, not only for its noble walls, but for the number of its magnificent edifices, the remains of which are ſufficient tokens of its antient grandeur. The outer walls round the old city have pretty well eſcaped the injuries of time, and appear to be of excellent workmanſhip. They are twelve miles in compaſs, and are fortified with ſemicircular towers twenty feet in diameter, and about a hundred and thirty diſtant from each other. At the top of theſe walls there is a walk built on arches, and at each tower is a ſtair-caſe leading to the battlements. The inner walls ſeem to be the work of the middle ages, are much ſtronger and higher than the outer, and are flanked with ſtately towers. The four gates face the four points of the compaſs, and are ſtill beautiful, though ſomewhat decayed. Out of the ruins and rubbiſh of the old city are frequently dug medals, coins, and other rarities; and the great variety of pillars, moſtly granite, with many fragments of columns of beautiful marble, are monuments of its priſtine magnificence.

It may not be improper to obſerve, that in this city the famed Ptolemy erected his library, con-

containing in his time 400,000 volumes, purchaſed at an immenſe price from all parts of the known world. However, it was ſo far enlarged by his ſucceſſors, that when it was burnt by Cæſar's ſoldiers, it contained, according to Gellius, 700,000 volumes.

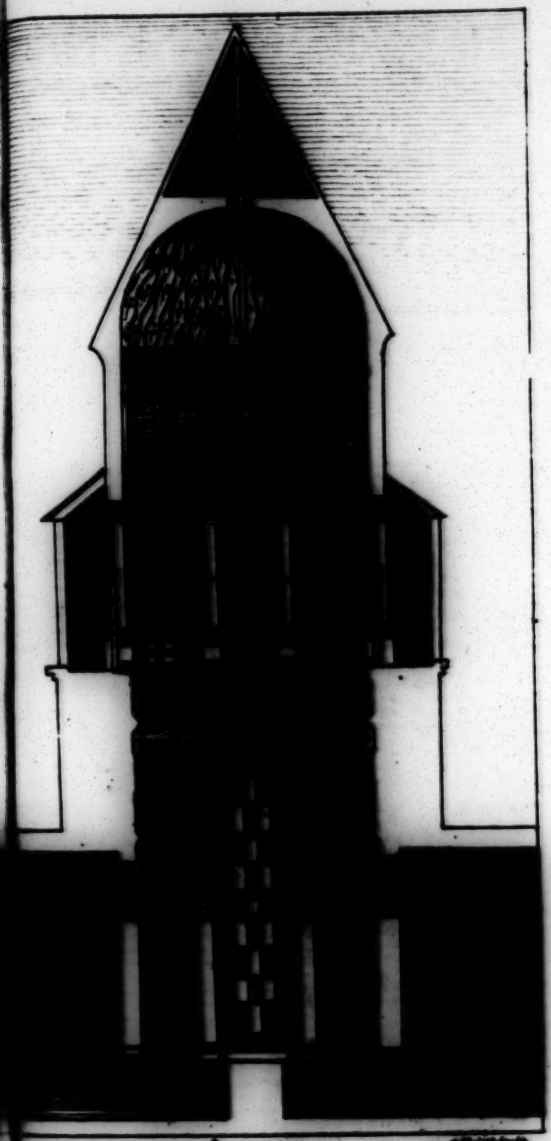
In the caſtle of Cairo they pretend to ſhew the very priſon in which Joſeph was confined; and there is a well called Joſeph's, which travellers repreſent as a great curioſity. It takes its name not from the Patriarch Joſeph, as is generally imagined, but from a Grand Vizier, who had the direction of the work about ſeven hundred years ago. It is dug through the natural rock, the ſtone being ſoft, and has a ſtair-caſe that goes winding round it, above ſix feet wide, the rock being at leaſt half a yard thick between this paſſage and the well, which prevents people from falling. Holes are cut at proper diſtances to let in the light, and the deſcent is very eaſy, each ſtep being about ſix inches high, and five feet broad; but the place is ſo clogged with dirt, that the ſteps are ſcarce perceivable. Thus we deſcend to the bottom of the firſt part of the well, which is a hundred and fifty feet deep, when turning a little to the right, we enter a chamber cut out of the rock, where oxen, by means of wheels, raiſe the water from the lower part of the well to the bottom of the upper part, from whence it is drawn to the top by other oxen above. This lower well is not ſo wide as the former, and the deſcent is difficult and dangerous, the ſtairs

being narrow, wet, and dirty, and no partition between them and the well. It is a hundred and twenty feet deep, which added to the other number make two hundred and ſeventy; but travellers differ in their computation, ſome making the number much greater. This well is never empty, being probably lower than the bed of the Nile; but the water is brackiſh, and therefore not fit to drink; however, it ſerves for common uſes, and is diſtributed in pipes to different parts of the caſtle.

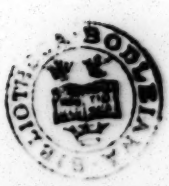
A ſupply of better water is brought to the caſtle from the river itſelf, by an aqueduct which makes a grand appearance, though uniformity has not been obſerved in building it, the arches and piers being of different dimenſions. At the north end of Old Cairo is a magnificent hexagonal building, ſaid to have been erected by one of the Mamaluke Kings of Egypt. On the outſide of it there is an eaſy aſcent for the oxen to go up, which turn the wheels, whereby the water is raiſed to the top of it from the reſervoirs below, into which it is let from the Nile by a channel cut for that purpoſe. Five oxen, and the ſame number of wheels, are employed in drawing up the water, which runs into a large baſon, and from thence into the aqueduct that conveys it to the caſtle. The arches of this aqueduct are about three hundred, Dr. Pokocke ſays two hundred and eighty-nine; but others vary from theſe computations.

At a little diſtance from the caſtle is a kind of ſuburbs called Caraffa, where there is a ſpacious burying-ground, and ſome magnificent tombs covered with cupola's, ſuppoſed to be the monuments of Egyptian kings, or of the caliphs, the relations of Mahomet, who conquered Egypt. The people have a great veneration for theſe tombs, and will not permit either Jews or Chriſtians to paſs by them without alighting from their aſſes as a ſign of reſpect. They were formerly endowed with large revenues for the entertainment of pilgrims that came to viſit them; but the greater part of that income has been taken away by the avarice of the Baſhaws, and moſt of the edifices are gone to decay, and lie quite neglected. There was anciently a ſort of univerſity here, for the ſtudy of law and divinity, and had a number of colleges and convents; but great part of it is now in ruins.

There is another piece of antiquity that deſerves to be mentioned, which is the Nilometer or meaſuring pillar, divided into cubits, which by the riſe of the Nile is exactly known. It is an octogonal column of white marble, placed in the centre of a baſon, whoſe bottom is probably on a level with the ſurface of the river when at loweſt, for to have it deeper would be of no ſignification. This baſon or reſervoir is in a little iſland over-againſt Old Cairo, and is ſurrounded with a handſome gallery;



Section of the Mikvas in the Isle of Roida.



lery; but the greateſt beauty of the place is the fine Corinthian capital of the column. From this ſtructure there is a deſcent to the Nile by ſteps, which are called Moſes's ſtairs, it being a received opinion among the people that he was taken up there, after he had been expoſed on the river in the ark of bulruſhes.

The Jews have a ſynagogue at Cairo remarkable for its antiquity, being built, according to their account, about ſixteen hundred years ago; and they have a tradition that the ſpot where they uſually read the law was honoured with the preſence of the prophet Jeremiah. They have abundance of antient manuſcripts, and among the reſt they pretend to have one of their law written by the hand of Ezra; who having, as they ſay, omitted the name of God out of reverence wherever it ſhould have been wrote, found the vacancies miraculouſly filled up the day after it was finiſhed. This manuſcript they eſteem ſo ſacred that no body is permitted to touch it, and it is kept in a niche nine or ten feet from the ground, before which a curtain is drawn, and lamps are continually burning.

We ſhall conclude this article with a ſhort account of the antient monaſtery of St. Antony, which is ſituated in the deſerts of Thebais, near ſome mountains where that famed

hermit lived and died. This edifice is ſurrounded with an oval wall, about five hundred paces in circumference, and near forty feet high, to keep out the plundering Arabs. The pilgrims and other viſiters are drawn up into it by a rope let down from a kind of watch-houſe on the top of a wall, and a crane turned by the monks within the incloſure. The cells of this monaſtery, which amounted formerly to more than three hundred, are now reduced to about forty, the reſt being a heap of ruins. Theſe cells are more like ſepulchral vaults than chambers, being moſt of them not above four feet high, five wide, and ſeven in length. Beſides theſe cells they have a common hall, a kitchen, and a ſtrong tower where they keep their proviſions, of which they commonly lay up a ſtock ſufficient for two years. The door that leads into it is plated with iron, and is entered by means of a draw-bridge from a lower tower over-againſt it; and hither the monks retire when they are cloſely beſieged by the Arabs.

But the greateſt curioſity of the place is a ſubterraneous paſſage about fifty paces long, which leads to a rock without the walls, from whence iſſues a ſtream of excellent water, ſufficient for all the uſes of the monaſtery, and ſerving to water their little garden, which is ſtored with variety of herbs and fruits. The beds of the monks are ſheepſkins ſpread upon mats, and a bundle of ruſhes

ſerves

ſerves them for a pillow. Their drink is water, and their food is chiefly the product of their garden.

There are more of theſe ſolitary places within the ſame deſert, ſome of which are cut out of the ſolid rock with a great deal of art and labour.

REMARKABLE LAWS *and* CUSTOMS *of the antient* EGYPTIANS; *together with a ſummary View of the moſt extraordinary* REVOLUTIONS *among them.*

THE Egyptians are ſaid to have been the firſt nation who rightly underſtood the rules of government; having perceived that the true end of government is to make life eaſy, and the people happy. The quantity as well as the quality of the victuals and drink of the antient kings of Egypt were preſcribed by the laws; and not only that, but all their hours, and almoſt all their actions were under the regulation of the laws. Thirty judges were ſelected out of the principal cities in Egypt to form a body or aſſembly for judging the whole kingdom. The prince in filling up theſe vacancies choſe ſuch as were moſt renowned for their honeſty, and put at their head the man whom he found moſt diſtinguiſhed for his knowledge, and love of the laws, and was held in the moſt univerſal eſteem. By his bounty they had revenues aſſigned them, to the end that being freed from domeſtic cares, they might devote their whole time to the execution of the laws.

In

In Egypt, perjury was puniſhed with death, and the falſe accuſer was condemned to undergo the puniſhment which the perſon accuſed was to have ſuffered, had the accuſation been proved. He who neglected or refuſed to ſave a man's life, when attacked, if it was in his power to aſſiſt him, was puniſhed as rigorouſly as the aſſaſſin. No man was allowed to be uſeleſs to the ſtate, but every one was obliged to enter his name and place of abode in a public regiſter, that remained in the hands of a magiſtrate, and to annex his profeſſion, and in what manner he lived; and if ſuch a one was convicted of giving a falſe account of himſelf, he was immediately put to death.

Polygamy was allowed in Egypt, except to prieſts, who could marry but one woman; the marriage of brothers and ſiſters was not only authorized by the Egyptian laws, but even in ſome meaſure was a part of the Egyptian religion, from the example and practice of ſuch of their gods as had been the moſt antiently and univerſally adored in Egypt, that is, Oſiris and Iſis. A very great reſpect was paid to old age in Egypt: but the virtue in higheſt eſteem among the antient Egyptians was gratitude, and no kind of gratitude gave them a more noble ſatisfaction than that which was paid to their kings.

Cham, the ſon of Noah, is generally ſuppoſed to be the ſame with Jupiter Hammon, and Miſeraim his grandſon the ſame with Oſiris,

ris, the great deity of the antient Egyptians. From him, it is ſaid, deſcended the race of monarchs who had the denomination of Pharaohs, of which line there are reckoned above ſixty princes, who reigned, as is ſaid, in an uninterrupted ſucceſſion to the year of the world 3435, when Pharaoh Pſamnitius, the ſecond monarch of that name, was conquered by Cambyſes King of Perſia, who united Egypt to the Perſian empire, under which it remained till the reign of Darius, being upwards of an hundred years, when it revolted from that crown, and became an independant kingdom.

In this ſtate it continued above fifty years, when Ochus King of Perſia recovered the dominion of it again, and it remained ſubject to the Perſian monarchs, till Alexander the Great defeated Darius, when it fell under the power of that prince, with the reſt of the provinces of the Perſian empire.*

After the death of Alexander, Ptolemy, the ſon of Lagus, found means to mount the throne of Egypt, and render it an independant kingdom once more; and his ſucceſſors, Kings of Egypt, ever after retained the name of Ptolemys. In this line, the crown of Egypt continued between two and three hundred years, the laſt ſovereign being Cleopatra,

* See Vol. XI. Page 28. 36, 37.

the

the wife and ſiſter of Ptolemy Dionyſius, the laſt king, and miſtreſs to Julius Cæſar and Mark Anthony ſucceſſively.

After the death of Cleopatra, this kingdom fell under the power of the Romans, and became a province of the Roman empire, in which ſtate it continued till the reign of Heraclius, Emperor of Conſtantinople, when the Egyptians being diſguſted with their governors, called in Omer the Third, Caliph of the Saracens, and ſubmitted themſelves to the Mahometan power, about the year of the Chriſtian æra, 640.

The Caliphs of Babylon were ſovereigns of Egypt, till about the year 870, when the Egyptians ſet up a Caliph of their own, called the Caliph of Cairo, to whom the Saracens of Africa and Spain were ſubject; but the governors of the provinces, under the Caliphs of Babylon and Cairo, ſoon wreſted the civil power out of the hands of their Caliphs; leaving them only the ſhadow of government.

About the year 1160, Aſſareddin, or Saracon, general of Narradin, the Saracen Sultan of Damaſcus, ſubdued the kingdom of Egypt, and uſurped the dominion of it; and was ſucceeded by his ſon Saladin, who reduced alſo the kingdom of Damaſcus, Meſopotamia, and Paleſtine under his power; and about the

the year 1190, took Jeruſalem from the Chriſtians.

This Prince eſtabliſhed a body of troops in Egypt like the Turkiſh janiſſaries compoſed of the ſons of Chriſtians taken in war, or purchaſed of the Tartars, to whom he gave the name of *Mamalukes*, which it is ſaid, ſignifies *ſlaves*; from their being devoted in a peculiar manner to the ſervice of their ſovereigns.

The poſterity of Aſoreddin, enjoyed the crown of Egypt, till the year 1242, when the Mamalukes depoſed Elmutan, and ſet up Turquemenius, one of their own officers, upon the throne. The Mamaluke Sultans were engaged in continual wars with the Chriſtians, in Syria and Paleſtine, till Arophus the ſixth Sultan entirely diſpoſſeſſed the Chriſtians of the Holy Land: the ninth Sultan Melechnoſſar ſubdued the iſland of Cyprus, and made it tributary to Egypt.

About the year 1501, Samſon Gaurus, the fifteenth Sultan of the Mamalukes, entering into an alliance with Iſhmael, the Sophi of Perſia, againſt Selim, the third Emperor and tenth King of the Ottoman family, the confederates received ſeveral memorable defeats; and Tomobeus the ſecond, who ſucceeded Samſon Gaurus, was depoſed and murdered by Selim, or, according to ſome accounts, hanged

hanged up at one of the gates of Grand Cairo. Gazello, one of the grandees of the Mamalukes, maintained a war for ſome time againſt Selim, but was at length defeated, and Egypt made a province of the Ottoman empire *, as it continues to this day.

* See Vol. X. Page 149.

END OF VOL. XII.

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